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WORLD MARITIME UNIVERSITY
Malmö, Sweden

**CUSTOMER RELATIONSHIP MANAGEMENT (CRM),
CUSTOMER SATISFACTION, LOYALTY AND PORT
PERFORMANCE: A CASE STUDY OF KENYA PORTS
AUTHORITY (KPA)**

By

EGILLA MKAWUGANGA
Kenya


A dissertation submitted to the World Maritime University in partial fulfilment of
the requirements for the award of the degree of

MASTER OF SCIENCE
In
MARITIME AFFAIRS
(PORT MANAGEMENT)

2018

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me. The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

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Egilla Mkawuganga

ABSTRACT

Title of the Dissertation: **Customer Relationship Management (CRM), Customer Satisfaction, Loyalty and Port Performance: A Case Study of Kenya Ports Authority (KPA)**

Degree: **M.Sc.**

This dissertation uses Kenya Ports Authority (KPA) as a case study to examine the role of customer relationship management (CRM) in generating customer satisfaction and loyalty and its impact on port performance. Increased globalization has seen to ports taking up new roles as dynamic business networks. There is therefore need for a port to develop its competencies, resources and capabilities in a way that satisfies its customers. CRM concept is identified as a strategy which enable firms to successfully interact with their customers in a dynamic and profitable manner. Literature review has been used to provide insight into drivers, barriers and benefits of successful CRM implementation. Importance of integrating port process, people and technology have been identified as key to satisfaction of customers.

Moreover, a research framework representing the causal relationship between the constructs is developed based on literature review. Data is collected through survey questionnaires from KPA employees and customers. Regression analysis using SPSS is used to analyze the relationship between the variables. The results indicate a significant positive relationship between CRM and customer loyalty following customers' satisfaction; a significant positive impact of customer satisfaction to customer loyalty; a significant positive impact of customer loyalty on port performance; and a positive impact of employee's engagement and port's objectives on successful CRM implementation. However, the impact of customer satisfaction on performance was rejected in this study. Therefore, this study suggests that KPA implement CRM which will enable the port enhance its quality of services and customer value so as to enhance customer satisfaction and loyalty.

This study extends knowledge in port industry by suggesting that ports need to embrace CRM concept so as to enhance customer satisfaction, loyalty and port performance.

Keywords: customer relationship management, customer satisfaction, customer loyalty, port performance.

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List of Abbreviations

CC	Credit Controller
CFA	Confirmatory Factor Analysis
CMP	Copenhagen Malmo Port
CRM	Customer Relationship Management
CV	Customer Value
DE	Documentation Executive
DV	Dependent Variable
GBH	Grain Bulk Handlers
GHGs	Green House Gas
GM	General Manager
HPH	Hutchison Port Holdings
IV	Independent Variables
KPA	Kenya Ports Authority
KTDA	Kenya Tea Development Association
LAPSSET	Lamu Port South Sudan Ethiopia Transport
MD	Managing Director
NAMPORT	Namibian Port Authority.
OM	Operations Manager
OPEX	Operating Costs
PA	Port Authorities
PCTC	Ports Proper Container Throughput Capacity
PMAESA Africa	Port Management Association of Eastern and Southern Africa
ROI	Return on Investments
SA	Senior Accountant
SC	Senior Clerk
SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences

SQ	Service Quality.
TICTS	Tanzania International Container Terminal
TPA	Tanzania Port Authority

Chapter One

1.0 Introduction

This chapter introduces the research area by providing background information pertaining to this study. It starts by outlining the research background and motivation of the study so as to highlight the significance of the subject under investigation in the study. The succeeding sessions present the research objective and research questions, followed by aim of study and an overview of the research methodology. The chapter concludes with the summary of the chapter.

1.1 Research Background

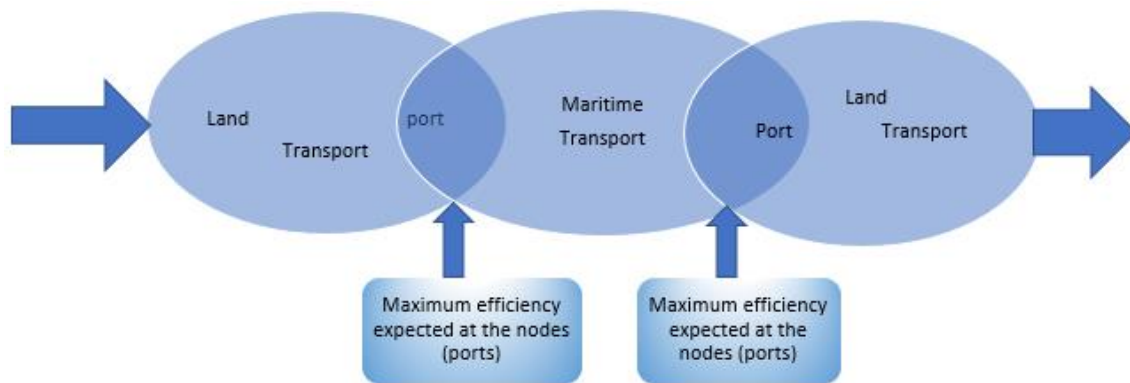
Increased globalization has seen to ports taking up new roles as dynamic business networks (Van der Lugt et al., 2007) and diminishing the traditional roles as simply an exchange point for people and cargo from land to sea and vice versa. Bichou and Gray (2005) and Notteboom and Winkelmans (2002) affirm this by stating that ports act as network in which each business competitiveness success is tightly connected to. Therefore, as global business network, port's global value proposition largely depends on its ability to develop its competencies, resources and capabilities (Parola et al., 2017) in a way that satisfies its customers.

Statistics show that over the last four decades' port industry especially container hub ports have experienced significant changes. This is evidenced by Asian ports overtaking the European and American ports and ranking in top positions in the world container

rankings (Lee & Lam, 2015). This wave of change is expected to escalate and trickle down to Africa as port investors seek to invest in regions with lower operating costs.

Some of the contributing factors to this shift of power include changes of production and distribution channels, city port interface, port governance, technology, customer's behavior, environmental issues, safety and security, pricing among others (Lee & Lam, 2015). These unfolding changes have intensified level of port competition to unimaginable levels. Jugović et al. (2017) state that ports are exposed to three kind of competition: Inter-port, intra-port and inter-port competition at the port authority level for instance ports sharing the same coast line, ports in different countries or at national level. Therefore, ports need to devise strategies which can improve their competitive edge through provision of high quality services, improved customer value and satisfaction and efficient port performance as indicated in figure1.1 so as to remain relevant in the maritime transport.

Figure1. 1 : Efficiency of ports in international trade



Source: Author, (2018)

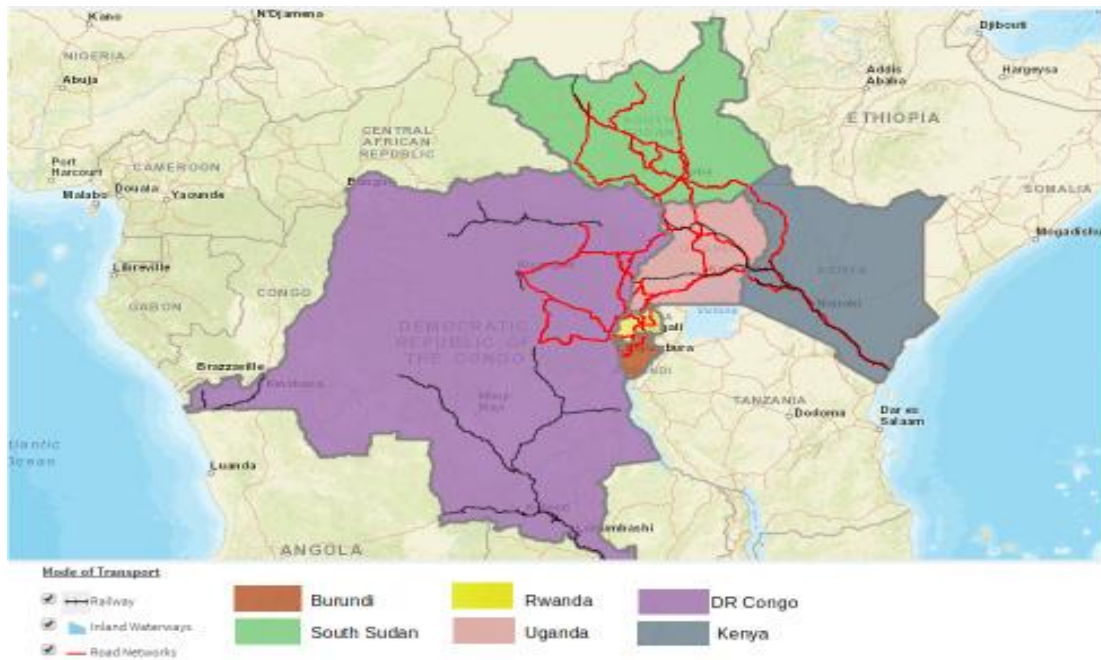
Today's customer continuously demands for efficient services at lower cost so as to reduce their business operating costs and maximize profits. As such, Port Authorities (PA) are under immense pressure to improve their levels of efficiency and performance so as to meet their customer's and shareholder's expectations. Cheon et al. (2018) emphasize that ports faced with competitive pressure have strong incentive to invest in

innovative cargo handling technology so as to minimize operating costs. However, these investments are costly thus port management is torn between efficiently meeting ports user's needs and recouping sufficient return on investments (ROI) for its shareholders.

In regard to this, ports are forced to adopt a business marketing perspective which enables it to efficiently meet its customer's needs while promising a positive ROI. Therefore, managing beneficial customer relationships becomes an important element as it enhances customer satisfaction through provision of quality services and enhanced customer value. The ideal philosophy behind is to differentiate ports services from its competitors by adding value to the services since ports offer homogenous services.

Kenya Ports Authority (KPA) is a public service seaport on Africa's East Coast and a statutory body under the ministry of transport. Owing to its geographic location, KPA is situated in a strategic location to maintain, operate, improve and regulate all domestic seaports located along Kenya's coast comprising of Mombasa, Lamu, Malindi, Kilifi, Mtwapa, Kiunga, Shimon, Funzi and Vanga (KPA). Additionally, KPA serves a vast hinterland beyond its borders comprising of Uganda, Rwanda, Burundi, Democratic Republic of Congo (DRC), and Southern Sudan which they share with Tanzania port Authority (TPA). This implies that KPA plays a significant role in facilitating international trade in East African region as shown in figures 1.2 & 1.3 respectively.

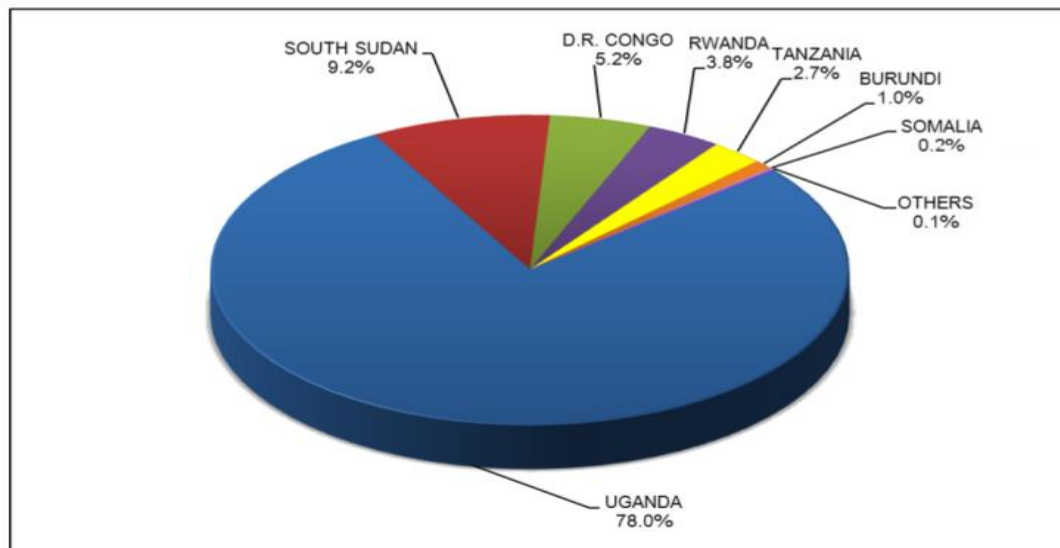
Figure1. 2: Markets served by KPA



Source: (kpa,2015)

Figure 1.3 shows the ratio of hinterland KPA serves.

Figure1. 3: KPA Transit Market Share



Source: (KPA,2015)

In an effort to enhance industrial transformation, trade and economic growth, develop Africa's East Coast and bring its services closer to its customers, KPA operates two Inland Container Depots (ICD's) in Embakasi-Nairobi and ICD- Kisumu served by road and railway. KPA additionally serves its hinterland through its Liaison offices in Kampala-Uganda, Kigali- Rwanda and Bujumbura- Burundi (KPA).

As a public service port, KPA takes full control over its management and terminal operations. Its traffic includes: Container traffic, Dry bulk, Liquid bulk, motorcars and general cargo (KPA, 2017). KPA has installed latest cargo handling equipment, modern information technology (IT) system, construction and renovation of necessary infrastructure to accommodate the growing traffic and improve on its service delivery. This has seen to an increase of cargo throughput of 27.36 million tons (MT) in 2016 from 26.73mt in 2015, and container traffic of 1,091,000 twenty equivalent units (TEU's) from 436,671 TEU's in 2015 (KPA 2017/2018). Therefore, KPA needs to continuously monitor and improve its service offering so as to competitively accommodate this growing market.

1.2 Problem Statement

Bichou and Gray (2005) define ports as networks in which other businesses success depends on. This means that ports efficiency determines success of these business markets and the country's economy. Lee & Cullinane (2016) refer to port efficiency and effectiveness as the main determinant of degree of connectivity between port hinterland and international markets.

KPA is recognized as Kenya's only deep water port and the main cargo gateway to a number of landlocked East African countries (PMAESA,2017). However, it shares its hinterland with TPA thereby competing for hinterland customers in order to realize their capital intensive ROI. To effectively compete with TPA, KPA business objectives and core values endeavor to improve service delivery and customer focus as shown in figure 1.4 and 1.5 respectively (KPA,2014). There is need for KPA to create a unique value proposition to differentiate its services from competition at the same time preserve its

market share. This can be achieved by having an appealing position in the minds of the customers to deter them from shifting to TPA.

Figure1. 4: KPA core values



Source: (KPA ,2014)

Figure1. 5: KPA objectives



Source: (KPA,2017)

Moreover, in business competition, it is important to have a clear picture of both current and future competitors. Table 1 below presents some of the trends exhibiting strengths and opportunities within the ports in Port Management Association of Eastern and Southern Africa (PMAESA) region (PMAESA,2017). These trends are considered to be KPA's current and future threat if KPA management is not proactive in devising strategies which can enhance the organization's competitive advantage.

Table 1. 1: Trends in the PMAESA region

Port	Region/ Country	Identified strengths and opportunities	Implications
Tanzania Port Authority (TPA)	Tanzania	<ul style="list-style-type: none"> ➤ Major upgrading to fulfil gateway role. ➤ A privately operated container terminal by Tanzania International Container Terminal (TICTS) which is managed by a world class renowned operator, Hutchison Port Holdings (HPH). ➤ Serves Zambia, Malawi, Congo, Burundi, Zimbabwe, Rwanda, Uganda. 	<ul style="list-style-type: none"> ➤ Private operators are driven by need to improve on operational efficiency. ➤ They Invest in state of the art equipments and innovation hence capability of handling higher throughput while reducing costs through economies of scale (Parola et al,2016). ➤ Greater efficiency will attract customers the port shares with KPA thus reducing KPA market share.
<ul style="list-style-type: none"> ➤ Port of Bujumbura ➤ Port of Mpulungu 	Burundi	<ul style="list-style-type: none"> ➤ Redevelopment of the port which includes the container terminal, construction of a shipyard and dredging. ➤ Port has three access points to deep sea; Through Kenya, Tanzania and through Zambia, Zimbabwe and South Africa. 	<ul style="list-style-type: none"> ➤ Port can accommodate larger vessels upon completion. ➤ Vessels prefer going where they can get repair services hence may re-route. ➤ Both scenarios give Bujumbura port a competitive advantage. ➤ Developments expected to reduce container transport costs and improving on transport chain for customers.
Lobito Port	Angola	<ul style="list-style-type: none"> ➤ Developing new terminals and capacity. ➤ Restored Benguela railway which in the long run will link Atlantic Ocean to Zambia and Congo 	<ul style="list-style-type: none"> ➤ Congo as a market served by KPA may shift to use Lobito if KPA does not provide satisfactory services thus reduced market share.
Port of Djibouti	Somalia	<ul style="list-style-type: none"> ➤ Strategic location at the entrance of Red Sea and crossroads of three continents. 	<ul style="list-style-type: none"> ➤ Can serve Ethiopia, hence a potential threat of reducing KPA market share.

		<ul style="list-style-type: none"> ➤ Regional container hub and entry port for Horn of Africa especially Ethiopia. ➤ Well connected by road and rail to the hinterland especially to Addis Ababa in Ethiopia through rail line. ➤ Developing port of Djibouti, and other development projects such as Dolareh, Tadjourah, Ghoubet and Damejog ports. 	<ul style="list-style-type: none"> ➤ Additionally, Ethiopia is part of the project of Lamu Port South Sudan Ethiopia Transport (LAPSSET) project for Kenya's Lamu Port under construction. If Port of Djibouti can competitively provide efficient services to Ethiopia, it may divert traffic from KPA to Djibouti
Namibian Ports Authority (NAMPORT)	Namibia	<p>Extensive road and railway infrastructure of Namibia and its proximity to landlocked countries like Botswana, South Africa (SA), Zambia, Zimbabwe and Congo</p> <p>Provides a faster transit between Europe, America, and SA.</p>	The fact that it serving some of the markets that KPA serves is a both current and future threat.

Source: Author, adopted from PMAESA, (2017)

To successfully compete in these regions and its domestic market, KPA needs to create, develop and maintain specific customer centric strategies. This is to enable the port efficiently meet its customer's expectations, needs and offer high quality of services while creating customer value. This is achievable through continuous monitoring of ports customers' feelings through feedback on their experiences with the port (Gummesson, 2004; Osarenkhoe & Bennani, 2007) and continuously improving on the green areas (Abdullateef et al., 2010). It is therefore important to continuously monitor both the internal and external customer's expectations and deliver superior value to the duo based on the ports distinctive competencies.

Therefore, KPA needs to expand and improve its infrastructure and superstructure; integrate and align port activities to those of its customers; greening of the port; enhance communication flow between management, employees, customers and other stakeholders; improve and embrace modern use of technology among others (Lee & Cullinane, 2016) and monitor customers changing needs. Moreover, it is important that

KPA enhances its focus on improved operational efficiencies; offer more competitive tariffs and more reliable service to its customers to sustain its present and future competitive edge.

In that regard, KPA management need to assess port performance through its ability to identify, attract, develop, retain customers and wade off competitors rather than only measuring physical outputs through efficient container handling (Song & Panayides, 2012; Van der Lugt et al., 2005). This is because measuring physical outputs only could be misleading. For example, growth in trade could lead to increased productivity but does not necessarily mean increased employees output or increased market share. Therefore, there is great need for port management to monitor customers needs through employing customer oriented business strategies to efficiently meet customers' demands and offer superior quality service to customers (NG & Pallis, 2010). This is to ensure established and maintained long-term relationships with the customers. However, public service ports lag behind because of lack of internal competition, government interference, lack of innovation and absence of market orientation leading to inefficiency.

According to Roy & Shekhar (2010), adopting efficient customer centric strategies aimed at creating, developing, enhancing and more specifically maintaining relationship with customers is crucial to attaining a sustainable competitive advantage in the marketplace. Yueh et al. (2010) suggests that CRM enable firms to successfully interact with their customers in a dynamic and profitable manner. In this regard, the role of CRM emerges for KPA to implement so as to develop the organization's competitive advantage. Dowling (2002) points out that CRM system is expected to improve responsiveness to customer's needs, increase their satisfaction and make them loyal to the organization.

1.3 Research Questions

The research focuses on the relationship between CRM, customer's satisfaction, loyalty and port performance using KPA as a case study. The study is limited to KPA customers within Mombasa who have been in business for over five years and frequently seek port services. The research attempts to answer the following research questions:

1. How does CRM help in maintaining beneficial relationships with customers?
2. How is CRM related to customer satisfaction and loyalty?
3. What is the relationship between customer satisfaction, loyalty and ports performance?
4. How does service encounter and technology enhance port's performance?

1.4 General Objective

The main objective of this study is to examine and understand the role played by CRM in delivering customer satisfaction and loyalty and the overall impact on port performance.

1.4.1 Specific Objectives

Summary of the study is achieved through assessing the following three key specific objectives. They include the following:

1. To identify drivers and barriers of managing customer relationships and examine its impacts in creating stable relationships with customers.
2. To investigate the relationship between CRM, customer satisfaction, loyalty and the role they play in enhancing port performance.
3. To examine the importance that customers place on financial and non- financial services rendered by the port.

1.5 Aim of the study

The research is important in various ways as it provides KPA management with several important CRM implications. First, it points out the drivers and barriers to successful CRM implementation. This provides the management with a platform to emulate for success of CRM initiative. The study further identifies the key areas which determine the success of CRM activities thus management need to put emphasis on. Considerably, the study identifies the importance of service encounters and technology in creating customer value through quality services while creating customer satisfaction and loyalty through CRM. The research equally present reasons for successes and failures of different organizations which have implemented CRM. Lastly, the findings and the

recommendations of the research form a basis for any further research considering the knowledge gap of CRM studies in the port industry.

1.6 Research Methodology

The dissertation starts with literature review of previous studies which have sought to explain the link between firm performance, customer satisfaction, loyalty and CRM in different service sectors. It then identifies and links the relationship between the three constructs to port performance. A quantitative research approach through use of questionnaire survey is used to answer the research questions and achieve the objectives of the study. KPA customers and employees are used as the case study of the research for data collection, analysis and findings. Descriptive statistics is used to describe the findings and regression analysis used to describe and evaluate the relationship between the constructs.

1.7 Structure of the dissertation

In a bid to achieve the objective of the study, six chapters are used. The chapters' flow are as follows:

Chapter one: Introduction and study background, motivation statement, research questions, objectives, aim of study and an overview of the research methodology, dissertation structure and its summary.

Chapter two and three: Through literature review, the study attempts to analyze the three constructs; CRM concept, customer satisfaction and customer loyalty through previous studies. This information is used to build up a conceptual framework which examines the existence of a relationship between managing customer relationships with port performance. Chapter conclusion ensues.

Chapter four: Presents the research design and methodology, the hypotheses and the analytical tools employed to explore the subject matter and its summary.

Chapter five: Presents KPA empirical analysis and discussion of the findings and summary of the chapter.

Chapter six: Provides the conclusion of the study through a summary and research outlook, its implications, limitations and suggestions for further research.

1.8 Chapter Summary

The chapter gave an introduction to the study which was followed by the research background. The problem statement was then defined together with the research questions, general objectives and the specific objectives. This was followed by defining the aim of the study and the research methodology which will be used to achieve the main objective of the study.

Chapter Two

2.0 Literature Review

2.1 Introduction

As aforementioned, this study aims at identifying the role of CRM in enhancing port performance in regard to customer satisfaction and customer loyalty in KPA's context. To this effect, this study will explore and critically evaluate both previous theoretical and empirical studies related to the subject matter to: provide a background of the research topic; create context for this study; show how this study fits into the existing body of knowledge and reveal gaps that this study will address. Therefore, this chapter and the subsequent one will build on the first chapter by conducting a literature review.

2.2. Background and justification of the chapter

Port rivalry has become so intense and a multi-faceted concept. This rivalry has been fueled by continuous changes in the ports and shipping industry leading to increased competition among ports locally, nationally, regionally and internationally (Notteboom & de Langen, 2015). Notteboom & Winkelmans (2001) state a successful port must be prepared to constantly adapt and cope to these new changes. Additionally, Osarenkhoe and Bennani (2007) state that a firm faced with tight competition needs to constantly monitor their customer's feelings towards the organization's services and propose relationship marketing as the means to securing competitive edge in the market. The authors findings show that the relationship concept is dependent on how and where people exchange information both internally and externally.

Therefore, an effort to foster how effectively KPA management can establish and maintain customer centric and market driven strategies has engineered this study on

CRM. CRM concept is considered a paradigm shift taking place in marketing transforming service marketing to customer based marketing (Gronroos, 1997; Kumar & Reinartz, 2018). The authors emphasize on the organization's need to update their processes and practices to align with customer's concept so as to remain relevant and accountable to their customers and to stakeholders.

A body of studies on CRM has been conducted on service industries comprising of hotels, hospitals, banks (Keramati et al., 2010; Mohammed & Rashid, 2012; Sadek et al. 2012). However, very few have been conducted in the shipping industry and more so in ports (Lu et al., 2007; Pereira et al., 2017; Yan & Nguyen, 2011). Studies undertaken in ports mostly focus on port service quality and customer satisfaction (Ugboma, et al., 2007; Yeo et al., 2015).

2.3 CRM Concept.

CRM has diverse definitions. Durvasula et al. (2004) define CRM as a business strategy which uses IT to provide a comprehensive, reliable and integrated view of the customer base so that all processes and interactions can help maintain and expand mutually beneficial relationships. CRM is defined by Chen and Popovich (2003) as an integrated approach for managing relationships by focusing on customer retention and relationship development and points out that customer loyalty and long profitability are the benefits of CRM to an organization. Moreover, Payne and Frow (2006) define CRM as a business approach which seeks to create, develop and enhance relationships with carefully targeted customers with an aim of improving customer value and corporate profitability thereby maximizing shareholders value.

From the outlined definitions and other available definitions, it is observed that providing value to the organization's customers is fundamental to achieving mutual beneficial relationships, customer loyalty and long corporate profitability while improving customer value. To this effect, this study will adopt Catalán-Matamoros (2012) definition of CRM as a combination of people, process and technology seeking to understand company customers. Matamoros additionally states that CRM is an integrated approach which

manages relationships by focusing on customer retention and relationship development. This implies that a CRM organization makes an effort to efficiently and effectively create a synergy between people (internal and external customers), process and technology so as to create positive relationships with both its existing and potential customers.

Wang et al. (2010) affirm that successful CRM implementation focuses on keeping and maintaining long term relationship with customers which yields customer satisfaction and loyal customers. Loyal customers in turn contribute to the organization long run profitability. This is achieved as customers develop a sense of familiarity and social relationship with the organization thus making it difficult to switch to competitors.

2.3.1 CRM Implementation

Irrespective of wide contributions on CRM benefits, its successful implementation remains elusive to many organizations. Chen and Popovich (2003) point out that this has been caused by firms lack of understanding that CRM involves company-wide, cross-functional, customer-focused business process re-engineering than an undertaking in isolation. Similarly, Reinartz, et al. (2004) state that CRM performance failure has been fueled by organizations considering CRM as an IT solution and a technology for a marketing strategy. Moreover, Appiah-Kubi (2010) stresses that most organizations have failed to mainstream CRM benefits into their activities to enable them develop closer relationship with their customers thus failing in their CRM initiatives.

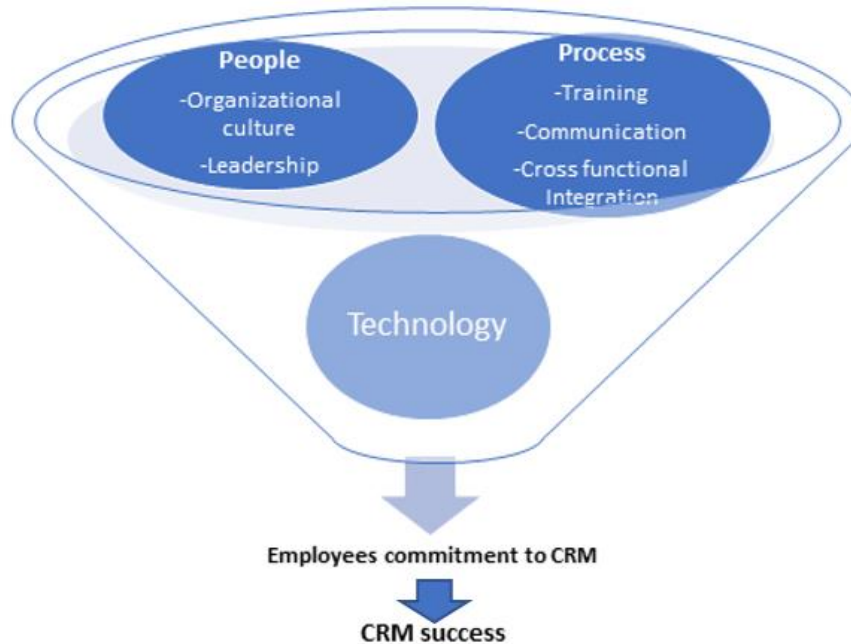
This implies that successful CRM implementation requires organizations to change the organizational culture; share information and coordinate marketing efforts across all departments; use CRM technology as an enabler to pursue enhanced opportunities by efficiently using available data to better understand customers' needs and preferences so as to develop customer centric strategies. Table 2.1 indicates some of the drivers and barriers to successful CRM implementation as outlined by different scholars.

Table 2. 1: Drivers and barriers of successful CRM implementation

DRIVERS	BARRIERS
<ul style="list-style-type: none">➤ Focus on People, processes, Senior management commitment, cross functional integration, Customer information management, support for operations management (Buttle, 2009)➤ Interrelationship of business and customer strategy (Payne & Frow, 2006)➤ Effective leadership, sourcing, targeting and evaluation (Bull, 2003)➤ Strategy, Technology, organization alignment (Liu et al., 2005)	<ul style="list-style-type: none">➤ Technological skill shortage, inadequate investment, poor data quality, failure to understand CRM benefits, Lack of top management support and inadequate metrics (Payne & Frow, 2006)➤ Cost, poor leadership, training (Ling & Yen, 2001)➤ Lack of strategic planning before CRM implementation, inability of the organization to integrate technology into the organizations marketing process (Raman et al., 2006)

The CRM drivers and barriers as tabled above echo what other authors described as the reasons for CRM failure in most organizations (Appiah-Kubi, 2010; Chen & Popovich, 2003; Reinartz et al., 2004). To affirm the studies above Ryals & Knox (2001) and Mendoza et al. (2007) studies undertaken to identify the most significant success factors in implementing CRM identified top management commitment, human resource and the structure of the organization as key to success. Therefore, importance of the management support, employees, processes and technology for CRM success cannot be underestimated as shown in figure 2.1.

Figure 2. 1: Successful CRM Implementation



Source: Chen & Popovich, (2003); Shum et al., (2008)

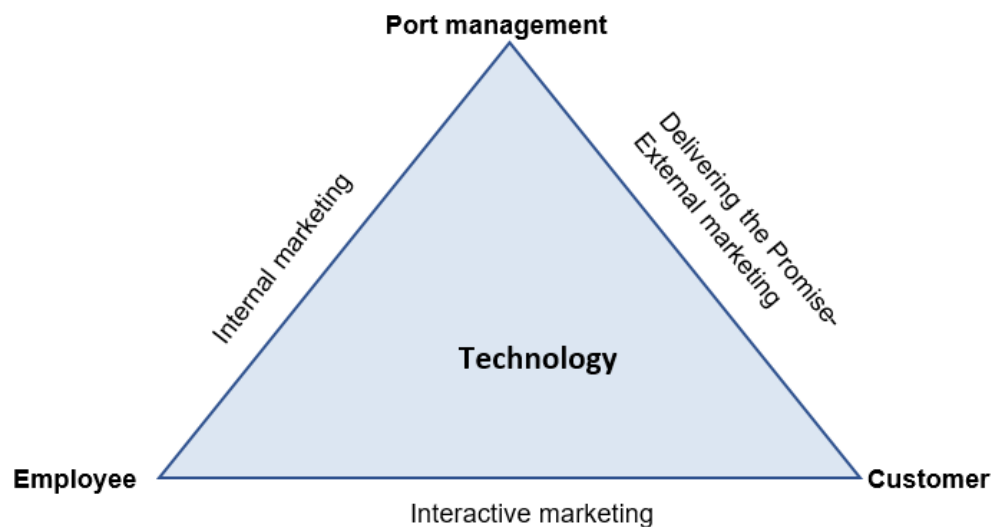
Richards and Jones (2008) summarizes CRM benefits as improved ability to target profitable customers, integrated offerings across channels, improved personnel efficiency and effectiveness. Yueh et al. (2010) additionally state that CRM enables firms to successfully interact with their customers in a profitable and dynamic manner whereas Appiah-Kubi (2010) states that building CRM derives a firm diverse benefits by baring competitors from knowing the organization's customers. Therefore, an organization which implements CRM by integrating its internal processes and functions using IT as an enabler to produce high quality service adds value to its customers and is able to achieve CRM benefits as mentioned.

2.3.2 CRM, Service Encounters and Technology

Organizations which consider CRM as an IT solution or a marketing strategy technology fail to realize CRM benefits. Durvasula et al. (2004) clarifies this by stating that technology role encompasses; facilitation of better interaction between customers and service

personnel, making call centers more efficient, discovering new customers, and simplifying marketing and service efforts among others. Dimitriadis and Stevens (2008) additionally emphasize that CRM strategy and technology offers firms with multiple opportunities to overcome the limitations of service marketing such as intangibility, inseparability, heterogeneity and perishability. Therefore, technology will provide a CRM port with an integrated approach in managing important aspects of customer relationships and adding value to various dimensions involved in customer relationships. For this objective to be achieved, there is need to integrate technology, port management, its employees and customers as indicated by Bitner et al. (2000) in the service marketing triangle (figure 2.2) where technology acts as the potential hub in the marketing relationships.

Figure 2. 2: Service marketing triangle



Source: Bitner et al. (2000)

The figure shows that ports can significantly benefit from use of technology when there is a synergy between the three actors; port management, employees and customers. Technology comes in as an integral part of the CRM system to influence the relationships by using database to understand customer's needs (Durvasula et al., 2004). For example, using ports website for either general or specific communication like providing itinerary of ship arrival; advanced call centers for instance the use of automated call distribution

system which can direct the calls to the proper department which addresses the customers' queries.

The external marketing link between the port management and the customers is the point at which the port seeks to develop and executes its marketing mix "7 Ps" of service marketing. It includes product, price, place, promotion, physical environment, process and people (Lovelock & Patterson, 2015). The marketing mix is used as a strategic lever needed to create viable strategies which satisfy customer needs profitably while providing the port with a competitive position in the marketplace.

Durvasula et al. (2004) state that the employee - customer link is the area closely tied to service encounters. This is because it is the place where the two frequently interact hence interactive marketing takes place at this point. As employees input is key to providing services, the interaction between the two at this point determine customer satisfaction or dissatisfaction. It is therefore at this point when the encounter determines whether the customers stays with the port or leave to competitors. Bitner et al. (2000) emphasize that technology can be used by contact employees to improve the efficiency and effectiveness of service encounters by enabling customization, improving service delivery and spontaneously delighting customers. Additionally, Durvasula et al. (2004) explain that it is during the service encounter that technology may replace the traditionally human involvement to provide service more efficiently and effectively for the benefit of both parties.

Lastly, is the interaction between the management and the employees referred as internal marketing. Employees commitment is a significant factor to successful CRM implementation as pointed in the employee's customer link above. For employees to satisfactorily deliver quality services to customers there is need for empowerment which can be achieved through training, incentives and proper treatment from the organization management. For successful CRM, organization should ensure recruitment of qualified personnel and continuously provide its personnel with training to keep them abreast with the changes in the industry.

Therefore, CRM technology is the information technology which acts as a facilitator for CRM activities within the port with a specific aim of creating and maintaining superior customer value and continuously delivering high quality service to customers. This will in turn satisfy customer needs which are expected to yield customer loyalty to the organization which will contribute to better performance (Reinartz et al., 2004).

2.4 CRM and Performance

Few research has been done on CRM process and firm performance (Day & Van den Bulte, 2002; Reinartz et al., 2004), while very little effort has been put on CRM shipping industry and more so the ports such as Yang & Nguyen (2011). Coltman et al. (2011) and Mithas et al. (2005) study on the relationship between the two showed positive impact of CRM on different aspects of performance. Reimann et al. (2010), however found no direct relationship between the two aspects but rather through differentiation and cost leadership.

Technology advancement enables an organization offer a wide range of customer service in a fast and effective manner. This enables fulfilling customers needs in a satisfactory and timely manner. Chang et al. (2010) study on how CRM technology translates into business outcome show that marketing capability mediates the association between CRM technology use and performance. They equally found out that customer centric, organizational culture and management systems facilitate CRM technology. They further suggest that the ability of CRM to successfully enhance organizational performance extensively depend on the extent to which the technology improves organization marketing capability. This is achieved by providing marketing and service support, effective data integration and analysis, customer centric organizational culture and managements system.

Dwarakish and Salim (2015) describes a port as a location in the coast which has harbors where ships can dock and transfer cargo or people from or to land. Thus ports provide essential services to the vessels, cargo interests and inland transport. Providing the services to these parties in an effective manner gives a port a competitive edge over its competitors.

Organizational performance comprises the actual output or results of an organization as measured against its intended output, goals and objectives. Port performance refers to its effectiveness in fulfilling its purpose, and in most instances according to Farrell & Oczkowski (2002), the purpose of its measurement is the improvement in the financial outcome of the organization. Therefore, organizational performance is a process of achieving organizational predetermined goals by increasing efficiency, quality, productivity, and profitability from the customer perspective as well as organizations. Based on CRM discussions presented, CRM can be used to efficiently and effectively achieve these goals.

As the old management adage goes “You can’t manage what you don’t measure” and “what gets measured gets improved”, therefore CRM impact to the port will only be acknowledged when its results are known. Performance measurement has been described as the process by which an organization establishes parameters within which programs, investments and acquisitions are achieving the desired results. Port measurement is conducted through physical performance, financial performance and quality performance (Brooks,2015). Therefore, increased customer satisfaction, loyalty and port performance after CRM implementation can be used to measure CRM benefits as exhibited through increased physical, financial and quality performance of the port.

Keramati et al. (2010) state that measuring performance by only using financial metrics could be misleading since it gives misleading signals concerning continuous improvement and innovation. This implies that measuring financial outcomes alone does not provide sufficient information on how to help direct the decision making that will achieve port performance improvement. Fourgeaud (2000) states that there is no benchmark for evaluating port performance because the requirement for measuring port performance is not uniform. This means that performance levels vary from port to port depending on whether its customers receive satisfactory service. It is therefore vital to understand that port performance evaluation cannot be determined on the basis of one single measure which is able to sum up all important aspects of port performance.

According to Buttle (2009), customer identification, attraction and customer retention are the CRM dimensions measures of organizational performance used with an objective of maximizing organizations profit, increasing market share and increasing performance. This study will therefore focus on the service measures which mean the quality of services the port offers to its customers; the capacity to solve customers' problems (customer value); port reliability, flexibility and other customer related services to measure customer's perception and satisfaction with KPA. These measurement items are selected since their main outcome is to retain existing customers and attract potential customers. Moreover, customer satisfaction and loyalty will be used to measure port performance.

2.5 Conclusion of the Chapter

The chapter shows barriers and drivers to successful implementation of CRM. It's observed that CRM is achieved on a one on one basis through providing customers with what they want rather than what the organization wants them to have. This implies that the port needs to change its processes and adopt a system in which they engineer their services according to customer's preferences. This can be achieved when there is a synergy between the management, employees and the customers where technologies aid in providing efficient services.

Chapter Three

3.0 Customer Satisfaction, Loyalty and Hypothesis Development

3.1 Introduction

Following chapter two, this chapter discusses customer satisfaction and loyalty concepts based on the conceptualization of this study. These concepts are largely borrowed from marketing literature since they lack sufficient coverage in port industry. Port industry most invariably offers homogenous services hence the need to differentiate ports offering from competing port by creating superior services. It has been ascertained that customers derive their satisfaction from higher quality of services thereby creating loyal customers who in return earn the firm more profits compared to competitors. Therefore, based on the literature provided, research hypothesis will be developed in this chapter.

3.2 Effects of CRM on Customer Satisfaction

There is some relevant literature focusing on service quality and customer satisfaction in ports (Ugboma et al., 2007; Yeo et al., 2015). Chi & Gursoy (2009) study found a positive impact of customer satisfaction in firm's financial performance. Yüksel & Rimmington (1998) state that determining customer satisfaction is fundamental for effective delivery of services since it provides a firm with advantage over competitors. Some of the identified benefits are as presented in table 3.1.

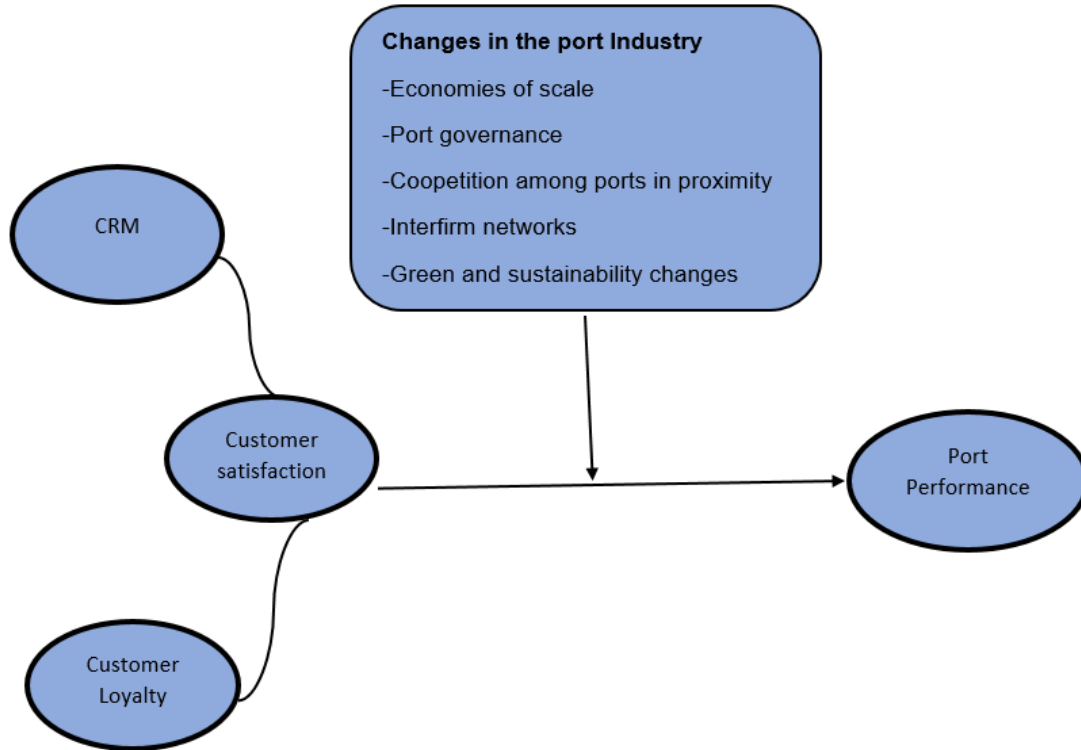
Table 3. 1: Benefits of customer satisfaction

Benefits	Reference
<ul style="list-style-type: none">➤ Product/service differentiation,➤ Increased customer retention,➤ Positive word of mouth.	Yüksel & Rimmington, 1998
<ul style="list-style-type: none">➤ Long run security of firms future revenue achieved by enhanced customers retention rate	Anderson et al. ,2004.
<ul style="list-style-type: none">➤ Positive impact and increased levels on customer loyalty,➤ Reduced likelihood of customer defection,➤ Reduced complaints.	Mithas et al., (2005)
<ul style="list-style-type: none">➤ Profits through satisfaction of consumer's needs and wants.	Churchill Jr & Surprenant, (1982)

To achieve these benefits, it is fundamental for a port to align its marketing strategies with the main objective of maximizing customer satisfaction.

Parola et al. (2017) study on drivers of port competitiveness state that port competitiveness is significantly affected by the emerging trends in the maritime industry. Ports can use these trends as illustrated in figure 3.1 to derive customer satisfaction while enhancing ports competitiveness.

Figure 3. 1: Changes in the port industry



Source: Authors, adopted from Parola et al., 2017.

a) Economies of scale in shipping

Increasing volumes of world seaborne trade have seen to an increase in ship carrying capacity (UNCTAD, 2017). This trend is expected to escalate. Shipping lines invest in mega vessels to reduce per unit cost (economies of scale) thus any delay in ports adds to their operating cost (OPEX). Therefore, ports should continuously improve both its infrastructure and suprastructure to accommodate larger vessels and meet their customers' needs leading to customers' satisfaction and improved competitiveness.

However, larger vessels create congestion in the port which lead to port inefficiency thus diminishing port's service levels. To avoid customer dissatisfaction, ports proper container throughput capacity (PCTC) should be determined in advance. This is done to establish when and how many facilities are and will be needed to efficiently accommodate

larger vessels without lowering the port's service level. PCTC is defined as the handling capacity which can cope with incoming cargo with no congestion thus contributing to the port competitive edge (Moon, 2018). High handling performance does not necessarily mean high service level since it could be that the port is experiencing high berth occupancy. This in turn has direct impact on ships waiting time thus lowering the port service level. Ports which align their processes, people and technology to continually adapt to growing size of vessels increase their customer satisfaction levels while improving on ports performance.

This is evident in European ports for example port of Rotterdam. The port continually focuses on maintaining steady relationship with its customers and remaining competitive by continuously expanding on its suprastructure to accommodate mega vessels. It equally invests in high tech handling equipments to ensure quick cargo handling.

b) Port Governance

Contemporary port governance reforms indicate a massive shift from public to landlord management model (Brooks & Cullinane, 2006; World Bank, 2007). This model permits private port operators to oversee port operations.

Public ports should emulate this model since this type of governance provides the port with the opportunity to select a highly reputable and effective port operator who can reinforce port competitiveness (Parola et al., 2017). Since private terminal operators are profit driven, the profit incentive drives them to efficiently run the operations thus adding to customers' satisfaction and port performance. Furthermore, port operators come with skills, experience, wide network and financial muscles for example technology thus adding to ports expertise, efficiency and productivity.

Secondly these reforms lead to a lean management structure which permits fast executive decision making consistent with the port changes as they emerge thus keeping up with competition.

c) Interim Networks

Rise of interim networks has been experienced in shipping and ports through mergers and alliances of major shipping lines. According to Heaver et al. (2001) these put pressure on ports to handle many ship-owners sharing the same capacity. Ports which have invested in high technology equipments, professional and motivated employees and have right processes in place permit smooth running of operations which contribute to high level of satisfaction and increased performance.

d) Green and Sustainability Challenges

Implementing a green port is a great challenge since it's a costly project. However, ports can use the green initiative as strength to enhance efficiency of the port while promoting the image of the organization and conforming to IMO's regulation of reducing Green House Gas (GHGs) emissions. For instance, a green port can offer incentives to customers who promote green initiatives thus enhancing its promotion element of the marketing mix at the same time creating a favorable image of the port as a market leader in green technology. This means that, this undertaking will please the customers driven by green technology at the same time attract other customers who are motivated by green initiatives.

Port-City relationship is another aspect the port should consider. Promoting green technology creates a healthy relationship between the port and its neighborhood. This promotes the image of the port while reducing tension between the port and the citizens due to effects of port operations. A good image creates brand value for the port.

e) Coopetition

Song (2003) defines Coopetition as the interdependencies of ports situated in the same proximity. These ports compete for the same hinterland. Ports adopt this strategy to cope with port related challenges including of congestion, limited handling capacity, growing costs and so on. This strategy is used to reduce harsh competition thus more focus is placed on providing better and satisfactory services to customers as seen in Copenhagen Malmo Port (CMP) and Port of Varberg and Halland in Gothenburg.

A port with efficient CRM system in place is able to monitor these changes in time while monitoring its customer's changing preferences. It is then able to competitively satisfy its customers as it becomes a market leader in tailoring its offering to meet the newly created needs of its customers. This is achieved through frequent customer interactions where customers' information is processed to discover their needs. Therefore, CRM applications help tailor customers needs according to their tastes thus enhancing customers perceived value. In addition, CRM enhances service reliability since it can accurately process customer's information and meet their needs in time as changes of industry unfold.

Yüksel and Rimmington (1998) point out that customer satisfaction is customer's post consumption evaluation of the service received over service expected. A good experience leaves a lasting impression.

3.3 Customer Loyalty

Dick and Basu (1994) identify customer loyalty as an important element in creating a firm's sustainable competitive advantage. Ports should seek to improve and realign both their internal and external processes to suit customer's needs and mitigate against increasing challenges brought about by increased competition and changing market. This is done to retain loyalty of both employees and customers.

A high employee turnover is detrimental to the firm and so is the loss of customers. Losing customers to competition leads to losses to the organization. Losing employee to competition exposes company secrets to the firm, increased recruiting and training costs and loss of morale to personnel. Therefore, to defend a firm's market share, a port should ensure it can retain both its customers and employees.

Srinivasan et al. (2002) emphasizes that a firm interested in building a solid loyal customer base need to use a different approach as compared to competitor whose only aim is to build a market share. This requires of the firm to emphasize on the value of its services and show its customers that the firm is interested in building a relationship with

them.

Zeithaml (2000) classifies customer loyalty into two components, behavioral and attitudinal. Behavioral loyalty occurs when a customer repeatedly uses the same service. Srinivasan et al. (2002), argues that the definition is not sufficient since it does not distinguish a loyal customer from a customer whose loyalty is caused by lack of options to choose from. Attitudinal behavior is defined as the attitude customers exhibit which shows that the customer wants to continue a relationship with the service provider (Gremler, 1996). Therefore, it is important to monitor both types of loyalty from ports customers so as to realign port's market offering to suit both situations.

Some of the loyalty benefits are as outlined in table 3.2. (Bowen & Chen, 2001; Palmatier et al., 2007). From the outlined benefits, it is fundamental for the port to ensure that it earns its customer's loyalty since it reduces the costs, ensures long and sustainable ROI and profits.

Table 3. 2: Benefits of customer loyalty

Loyalty benefits	References
Act as a barrier to competition; repeat purchase add to the profits of the organization	Bowen & Chen, 2001; Palmatier et al.,2007
Positive attitude acts as attraction to potential customer's; long term commitment secures the firms market share	
Expressive word of mouth is the cheapest method of promotion thus reduces marketing costs	
Firms position in the market is strengthened since customers seek the services instead of competitors	

This study adopts elements of both behavioral and attitudinal elements to construct questionnaire measurement items to measure how loyal KPA customers are to the organization.

3.4 Measuring CRM

Defining and measuring CRM remains elusive to many as stated by Richards & Jones (2008). In this study, CRM will be measured using two sub contracts, service quality and customer value. Service quality(SQ) is used since it provides a broader view of measurement based on KPA resources, output, processes, management, KPA image and social responsibility thus providing the financial measurement accountability from the income the port earn from providing higher quality of service. It encompasses processes, technology and strategic initiatives which drive efficient decision making. Customer value is used as a measurement tool which provides nonfinancial measurement accountability of CRM initiatives as an ingredient to long term relations between customers and the organization.

3.4.1 Service Quality and its measurement

Wide literature has acknowledged SQ as an important aspect as it aids firms to maximize their profits while satisfying and retaining the firm's customers. This is to say that a port can use SQ to create itself a competitive edge in the industry.

Irrespective of its wide acknowledgement, its measurement has been a contestable debate (Yeo et al., 2015). They state that SERVQUAL by Parasuraman et al., (1988) has been widely acknowledged as SQ measurement tool alongside others including, SERVPEF by Cronin & Taylor, (1992); ROPMIS by Thai, (2008). In their study of investigating the role of port service quality in influencing customer satisfaction, they found out that some of the measuring items like management, image and social responsibility had positive effect on customer satisfaction.

This study will adopt ROPMIS model to measure KPA customer's perceptions and satisfaction regarding KPA services. Resources dimension according to Thai (2008) comprise of physical and financial dimensions; outcome is the service accomplishment;

process involve the interaction between employees and customers; management refers to efficient selection and deployment of resources; image dimension refers to customer's perception of ports overall SQ; SR dimension refers to company's ethical perception and behavior towards social benefits. In this study, image and social responsibility dimension will be used as one item.

3.4.2 Customer Value

Value is all what a service is worth to a customer. According to Wang et al. (2004) customers evaluate service worth based on price and quality and only purchase that which gives the best value. Successful firms measure customer perceived value and use the results to design a suitable marketing mix which creates value to both the firm and its customers.

To determine what customers' values most, information about the customer is needed and that's where CRM comes in as it provides customers database. The database shows the customers consumption patterns thus provides the organization with a guideline on how to create a value proposition which meets the target market needs.

To create superior customer value, the firm needs to provide the customer with the ability to directly communicate with the firm; meet their expectations, build good knowledge about a customer, improve experiences with the company develop an emotional bond with the customer (Wang et al.,2004). This study will measure customer value through customers perceived value and desired value.

3.5 Research Model and Hypotheses

The overarching objective of this study is to analyze the relationships between CRM, customer satisfaction and loyalty on port performance. Based on the literature provided on CRM, customer satisfaction and loyalty, five hypotheses will be tested. The constructs are defined as shown in table 3.2 before establishing a research model.

Table 3. 3: Definition of key concepts and measurement tools

Concept	Definition	Explanation	Implication	Measurement Tool
Service Quality (SQ) (Dibb et al., 2016; Zeithaml & Parasuraman ,2003).	<ul style="list-style-type: none"> ➤ Customers' perception on how well a service meets or exceeds their expectations. ➤ The gap between customer's expectations regarding the service they had perceived and what they have received. 	<ul style="list-style-type: none"> ➤ Implies that customer's satisfaction is determined by his/her perception of the value received in a transaction or relationship. 	<ul style="list-style-type: none"> ➤ Port needs to evaluate their quality of service from the customers' point of view since SQ is judged by customers. This determines customers' satisfaction/ dissatisfaction. 	<ul style="list-style-type: none"> ❖ Thai 2008 ROPMIS Model ➤ Resources ➤ Outcome ➤ Process ➤ Management ➤ Image ➤ Social Responsibility (Yeo,2015)
Customer Value (CV) Oh,1999; Zeithaml et al.,1988	<ul style="list-style-type: none"> ➤ Customer's overall assessment of the utility of a product based on perceptions on what is received for what is given. 	<ul style="list-style-type: none"> ➤ It is vital to create and communicate value to customers with an aim of driving their satisfaction, loyalty, and profitability of the organization. 	<ul style="list-style-type: none"> ➤ CV influences customers purchase decision making hence need to be constantly monitored. 	<ul style="list-style-type: none"> ➤ Perceived value ➤ Desired value Kumar & Reinartz, (2016)
Customer satisfaction (Armstrong et al., 2014; Yeo,2015)	<ul style="list-style-type: none"> ➤ Customers post consumption experiences compared between initial expectations and the perceived difference from the initial reference point. ➤ The sense that customers get when 	<ul style="list-style-type: none"> ➤ Implies that a customer is satisfied when performance matches his expectations, delighted when service performance exceeds his expectations and dissatisfied when the 	<ul style="list-style-type: none"> ➤ A dissatisfied customer easily switches to competitor who offers satisfactory service. Therefore, customer satisfaction acts as a mediating 	<ul style="list-style-type: none"> ➤ Information accuracy ➤ Timeliness, ➤ Reliability ➤ Completeness ➤ Satisfaction with facilities, management, employees,

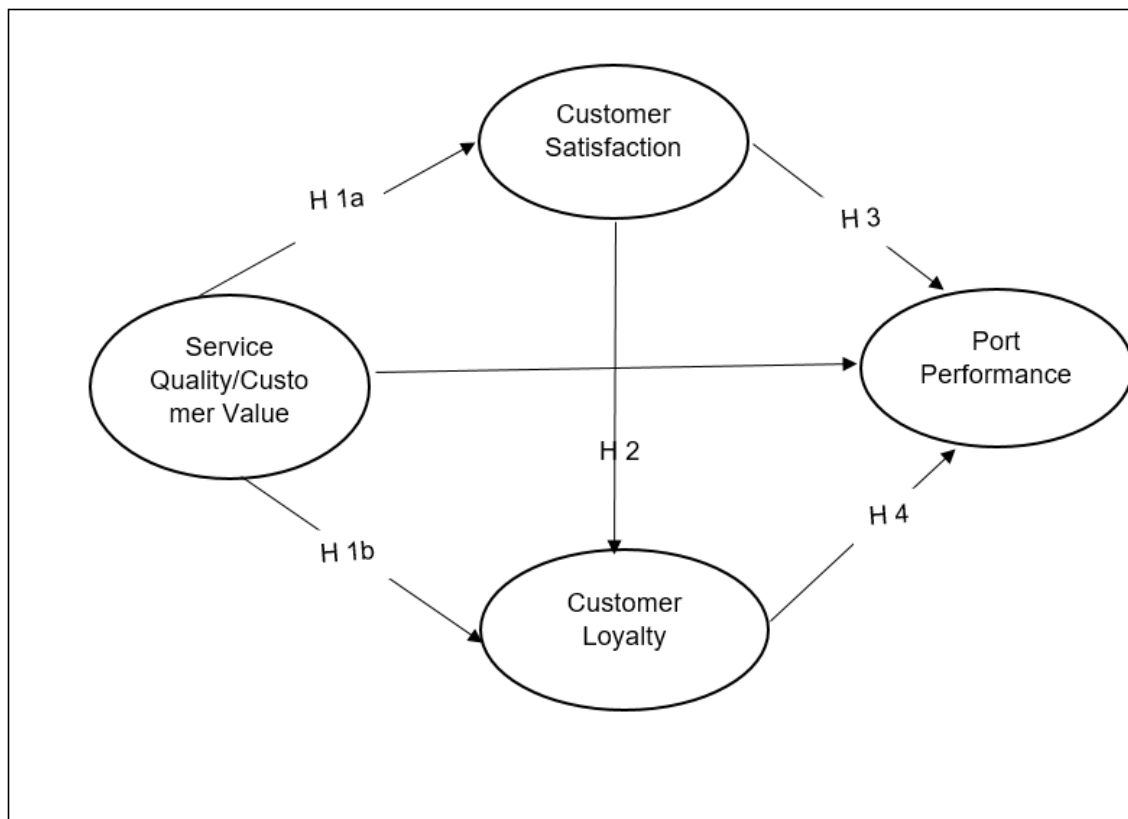
	they experience services which fulfills or exceeds their expectations	service performance falls short of his expectations.	variable between SQ dimensions, perceived price and fairness, service convenience dimensions and customer loyalty, (Ozatac et al., 2016). ➤ Level of customer satisfaction is therefore increased with increased level of perceived quality of service.	PSQ ➤ Intention to refer service to others ➤ Intention to continue seeking services of the port (Thai,2008)
Customer loyalty Dimitriades, 2006; Bell et al., 2005	➤ The strength of the relationship between an individual's relative attitude and repeat patronage. ➤ The intention to stay with and the level of commitment to the organization.	➤ It is the tendency displayed by a customer to continually stay with same port and its level of commitment to the port.	➤ A high favorable attitude and repeated patronage to the port compared to potential alternatives results to resistance to counter persuasion by competing ports. ➤ Word of mouth from a loyal customer to potential customer acts a promotional tool to increase the	➤ Continual use of KPA service. ➤ Effort to improve relationship with the KPA ➤ Favorable attitude towards KPA. ➤ Recommendations of ports services to others (Bowen & Chen, 2001; Palmatier, Scheer & Steenkamp

			port market share. (Dick& Basu, 1994).	2007)
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Source: Author, (2018)

Therefore, the above constructs relationship is inferred as described in figure 3.2. The figure illustrates the research framework and details the proposed hypotheses which will be tested empirically in this study. Meanwhile table 3.2 illustrates summary of constructs definitions and measurement items which will be used to measure the constructs as developed in the literature review.

Figure 3. 2: Research Framework



Source: Author, (2018)

It is conceptualized that CRM through quality services and customer value yields satisfied and loyal customers who in turn add to profits of the organization (Heskett et al., 2008). This is achieved as customers continually patronize port services and recommend good services to others. This is assumed to add to ports market share through good customers perceived value of service. This implies that port performance is determined by port management ability to build and maintain profitable customer relationship through delivering superior customer value and satisfaction to the customers. Therefore, CRM strategies are developed to provide port managers with sufficient knowledge regarding their customers' needs and facilitate quick response in terms of their continuous value creation and delivery. These propositions are platforms of customer satisfaction. On basis of this review, this justifies the relationship provided for in the framework. Therefore, the study hypotheses are developed and tested as shown in table

Table 3. 4: Hypotheses of the study

Hypothesis	Description
1 a	CRM has a significant positive impact on customer satisfaction following customers satisfaction on KPA's SQ and CV.
1 b	CRM has a significant impact on customer loyalty following customers satisfaction on KPA's SQ and CV
2	Customer satisfaction has a significant positive impact on customer loyalty.
3	Customer satisfaction has a significant positive impact on performance.
4	Customer loyalty has a significant positive impact on port performance.
5	Employees engagement and organization's objectives have a positive impact on successful CRM implementation.

3.6 Conclusion

This chapter primarily focused on developing and justifying the research model through the literature discussed on CRM, Customer satisfaction, loyalty and port performance. A conceptual model was presented describing the link between the constructs and seven hypotheses developed.

Chapter Four

4.0 Research Methodology

4.1 Introduction

The previous two chapters provided a theoretical basis for this study. A critical analysis of available existing literature enabled identification of research gaps so as to justify this study. This chapter describes the adopted research design and explains the methodology that guided data collection and analysis to investigate the hypothesized relationships. Moreover, this chapter links the preceding chapter on literature review to the succeeding chapters related to empirical results of the analysis.

Miller and Salkind (2002) define methodology as a body of knowledge which describes and analyses methods, indicating their limitations and resources, clarifying their presuppositions and consequences and relating their potentialities to research advances. Therefore, the importance of methodology of this study cannot be ignored. To this effect, this chapter will address the research design, choice of data collection methods and data analysis techniques.

4.2 Constructs Operationalization and Questionnaires Development

In this case study, literature review was used to operationalize the constructs and develop the questionnaires. The customer questionnaire set (Appendix III) contains the correspondence demographics; details on the customer's familiarity with KPA and their opinion on KPA; customer's perception on KPA service quality, customer value, customer satisfaction and loyalty, performance and the marketing mix elements; two multiple choice question to deduce customer's opinion regarding KPA's weakness and determine relevance of global climate change to them. The employee's questionnaires comprised

of two sections; their demographic details and measure on their satisfaction and perception of the organization (Appendix IV). The questionnaires were measured using a five point Likert scale ranking from 1(strongly disagree/dissatisfied) to 5(strongly agree/satisfied).

Face validity was conducted to ensure that the items of the questionnaire consisted of empirical, theoretical, practical and ethical issues. This was achieved through close scrutiny of the set of questionnaire by the school's ethics panel and the study supervisor to ensure that they met the required standards.

4.3 Research Design and Methods

Arora (2011) defines research design as a plan, structure and strategy of investigation adopted in a study which is followed to achieve the research objectives and address the hypotheses while providing the operational implications to the final analysis of data. This means that it presents an outline on how information was collected from the respondents, criteria used to select the respondents, analysis of the information collected and finally communicating the findings. The process is undertaken to ensure validity and reliability of the results. It is therefore vital to develop a research design which enables the researcher effectively collect data which addresses the study objectives and answers the questions under study.

As aforementioned, this study aims at examining and understanding the role of CRM, customer satisfaction and loyalty in relation to port performance. This study uses mixed methods, which combine both qualitative and quantitative data collection methods to achieve this objective. This method was selected because of its ability to offset the limitation of either of the research method and permit better insight into the research problem (Saunders, 2011; Tashakkori & Teddlie, 2009). Moreover, mixed method permits greater reliability and validity of the results through checking and verifying each method so as to obtain a comprehensive understanding and clear picture of the research questions.

4.3.1 Qualitative Research Technique

Mehta (2013) states that a researcher uses qualitative method when in need to examine in a holistic manner, the components of a certain reality within its contextual setting. This study therefore embraces this method so as to gain insight on the relationship between the aforementioned constructs. This is achieved through extensive reading of available literature on the subject matter.

4.3.2 Quantitative Research technique

The quantitative method involved the use of 120 questionnaires. The questionnaires were to enable empirical investigation and testing of the developed hypotheses. Questionnaires were preferably used because they enable efficient collection of data from a wider population within a short period of time.

4.4 Population of the Study

The population under study comprise of KPA employees and customers based in Mombasa.

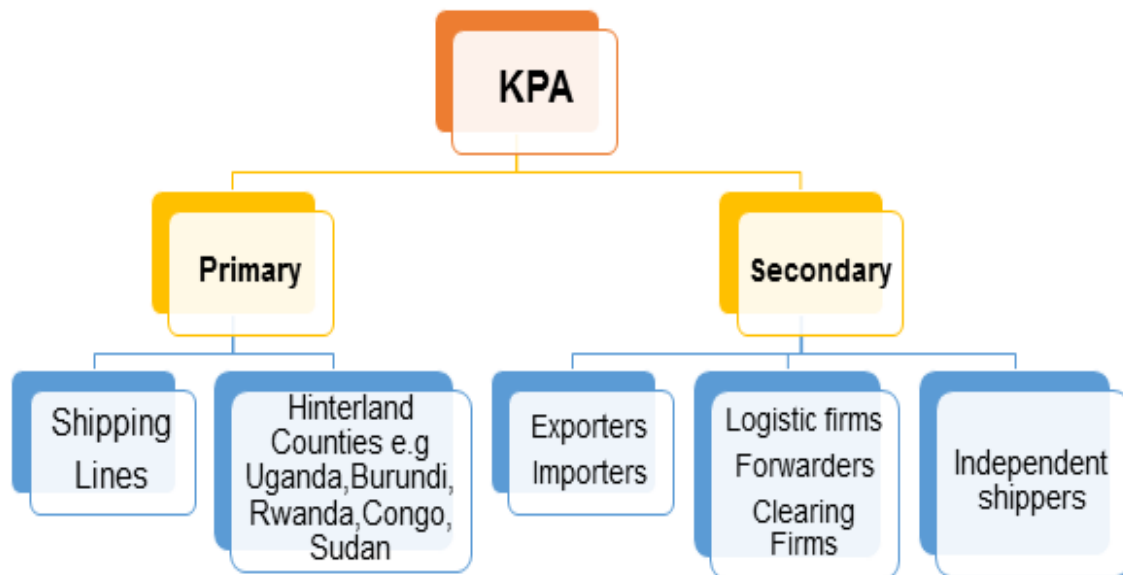
4.4.1 Design of the Sample Size

Boeije (2009) states that a sample comprises of units, case or elements under study selected from a defined research population. This is to say that a sample is a subset of a population thus reflects the population characteristics.

KPA customers are categorized into two categories: primary and secondary customers as shown in figure 4.1 (KPA,2014). The target sample of customers for this study comprise of 60 secondary customers who have conducted business with KPA for over five years. The reason for leaving out the shipping lines is based on the assumption that their port of call is a derived from where cargo is. Hence we say their demand is derived from the secondary customers.

In this regard, there is need to identify with the secondary customers who attract the primary customers.

Figure 4. 1: KPA Customers Structure



Source: Owners adopted from KPA customer charter

Employees sample comprise of 60 managerial and mid-career personnel from sections as illustrated in table 4.1 who frequently interact with customers while the customers sample is as illustrated. Both samples were randomly selected and issued with questionnaires physically or through mail. The full survey was carried out in a two months' period.

Table 4. 1: Sampling Methodology

Employees	Customers
<ul style="list-style-type: none">• Public Relations• Marketing• Terminal Operations• Customer Care• Procurement• Health & Safety• Research• Conventional Cargo• IT	<ul style="list-style-type: none">• Logistic Firms• Freight Forwarders• Clearing Agents• Importers & Exporters

Source: Authors, (2018)

4.5 Data Collection

Arora (2011) states that data collection is done after defining the research problem and laying out the research design. This study's data was collected through questionnaires. Therefore, primary data was used to gain insight into this study.

4.5.1 Data Collection Instruments

Both qualitative and quantitative methods were used. Closed ended questionnaires were used in obtaining quantitative data. Arora (2011) state that a questionnaire comprises of a number of questions formulated, typed or printed in a definite order on a form or a set of forms. He further stipulates that the questions must be developed in an easy way for respondent to understand as they have to respond to the questions unaided.

Open ended questions were not used because the Principal Operations Manager (planning) advised against it since KPA was going through a crisis. He thought it would demand more commitment from the customers and therefore they would not be willing to respond to such kind of questionnaires within the study's time limit.

The two sets of questionnaires items, customers and employees, were designed based on information gathered from KPA website and reviewed literature. They were then modified to suit KPA context. Additionally, Parasuraman ROPMIS model was adopted after modification of the questionnaires to reflect KPA's activities. Both set of questionnaires were developed to test the duo ratings of expectations and perceptions on the aforementioned constructs.

4.6 Validity and Reliability of the Questionnaire

It is important to determine questionnaires contents validity during the process of determining its items. Gliem and Gliem (2003) define content validity as the extent to which an instrument measures what it is intended to measure. This implies that it involves reviewing the measurement items so that they only include what its purported to measure. It is done to permit a strong basis on which to build a methodological rigorous assessment of the surveys instrument. Reliability is the ability of the instrument to measure consistently.

Literature review was used to test the questionnaires validity. This was achieved by setting the questions based on previous studies tested on different industries such as banks and hotels. Additionally, questionnaire items were judged as relevant by the study supervisor and school's research committee as possessing content validity.

Questionnaires reliability was verified using Cronbach's Alpha test. According to Gliem and Gliem (2003), Cronbach's Alpha reliability ranges between 0 and 1. They however state that a Cronbach's alpha coefficient closer to one provides a greater item internal consistency. They further add that a rule of thumb by George and Mallery (2003) provides that figures $>.7$ is acceptable, $>.8$ is good and $>.9$ is excellent. This study utilized these limitations.

Table 4.2 presents a subscale's scale alpha value of .87 and .96 for customers and employee respectively. This indicates that the subscales have adequate levels of inter-item reliability, 19 for customers and 65 for employees. This was attained after conducting factor analysis to identify factor loadings which best reproduce as closely as possible the observed correlation matrix with minimal number of factors possible.

Table 4. 2: Reliability Survey

Details	Customers	Employees
Cronbach's Alpha Result	0.873	0.964
Number of Items	19	65

4.7 Data Processing and Analysis

Statistical Package for Social Sciences software package (SPSS) was used to achieve the descriptive analysis results and test the hypothesized relationships between the constructs using regression analysis. Yan et al. (2009) define regression analysis as a method used to discover relationship between one or more dependent/response variables (DV) to independent/explanatory variables (IV). They additionally state that a regression model which adequately gives a true reflection of the relationship between IV's and DV's can be used to establish desired causal relationship between the two variables and then estimate the statistical significance of the estimated relationship.

Similarly, the model is able to show the degree of confidence on how the estimated statistical relationship reflects the true relationship. Measurements models are tested using confirmatory factor analysis (CFA) to determine how well the observed variables explain the latent variables (Teo, 2013). Variables used to test hypotheses are as indicated in table 4.3

Table 4. 3: Measures used to test hypotheses

Customer measures	Code	Employees Measures	Code
Service Quality		Satisfaction on employees training and personal development	
❖ Resource Related Dimensions (5-point scale)		➤ I am satisfied with the available training opportunities to staff.	TRN_V1
➤ Organization has modern cargo handling equipment which meet customers' expectations.	R_V1	➤ I am satisfied with the local training opportunities in Bandari college.	TRN_V2
❖ Outcome Related Dimensions (5- point Likert scale)		➤ I am satisfied with the career advancement opportunities.	TRN_V3
➤ KPA is flexible to the changes of ports and shipping industry, hence a reliable provider	O_V1	➤ The organization provides me with training opportunities even when I do not demand for it.	TRN_V4
➤ KPA ensures cargo is safe and secured within KPA premises	O_V5	➤ Promotion or career advancement is guaranteed upon completion of a training course / program.	TRN_V5
❖ Process Related Dimensions		Satisfaction	
➤ The employees are willing and quick to assist the customers.	P_V3	➤ I am satisfied with the organization's policies.	ES_V1
➤ KPA follows- up on customers' needs.	P_V8	➤ I am satisfied with organization's remuneration scheme.	ES_V2
❖ Management Related dimensions		➤ I am satisfied with the organization's work space and facilities.	ES_V3
➤ KPA is sensitive to its customers and seeks to develop their growth.	M_V1	➤ I am satisfied with the organization's overall treatment to staff.	ES_V4
➤ KPA takes into consideration its customer's suggestions and opinions.	M_V2	➤ I am satisfied as a KPA employee.	ES_V5
➤ KPA has an open door policy for its customers (access to management, information, etc.).	M_V4	Team Work	
➤ KPA is dedicated in fighting fraudulent and corrupt activities.	M_V5	➤ Mutual respect exists between immediate supervisors (managers) and subordinates and work as a team.	TW_V1
❖ SR/Image Related Dimensions		➤ The Organization encourages teamwork with colleagues from other background (tribes, religion, race, etc.) and provides team building events.	TW_V2
➤ KPA practices fairness among its customers.	SRI_V2	➤ Diversity exist in the attribution of	TW_V3
➤ KPA makes to fight corruption in the port.	SRI_V4		

Customer Value ➤ Consistent and reliable service across all the departments.	CD_V2	work space / offices.	
Customer satisfaction ➤ How satisfied are you with the information you receive and the timeline of the Organization in responding to your needs?	CS_V4	➤ There is coordination of activities in the department to meet customers' needs. ➤ The organization encourages group decision than individual decision.	TW_V4 TW_V5
➤ How satisfied are you with KPA's range of services?	CS_V5	KPA's Objective ➤ The organization has clear established goals on customer care. ➤ Every employee fully understands the needs of KPA's customers.	KO_V1 KO_V2
Customer Loyalty. ➤ I am likely to share my positive experiences at the port with others.	CL_V2	➤ KPA has professional employees who provide technical support to its customers.	KO_V3
➤ I value my relationship with KPA thus it has my loyalty.	CL_V4	➤ The organization provides for channel which enables efficient communication with our customers.	KO_V4
Performance ➤ Do you think KPA can improve its performance if it put more emphasis on CRM?	PCE_V2	➤ The organization commits time and resources in managing customer relationships.	KO_V5
➤ Do you think a customer oriented service will make your company happy, satisfied and a loyal customer?	PCE_V3	CRM Practices ➤ The organization stresses customer value over pricing. ➤ The organization works hard to establish social bonds with our customers.	CRM_V1 CRM_V2
➤ Do you think KPA is offering satisfactory services to its customers?	PCE-V4	➤ The organization emphasizes on efficient communication and customization of services to our customers. ➤ The organization focus on fair treatment to its customers. ➤ I think a stronger emphasis on maintaining sustainable relationship with our customers can improve our performance?	CRM_V3 CRM_V4 CRM_V5

4.8 Ethical Considerations

School's requirement regarding sourcing information from human respondents requires ethical considerations. Moreover, there was utmost need to assure the respondents of complete anonymity of their views to safeguard them against any eventuality pertaining any information they shared. Therefore, it was important to address issues pertaining confidentiality and privacy prior to issuing respondents with the questionnaires. A consent letter obtained from the university was attached to the questionnaire to assure the respondents of anonymity and information would solely be used for this study purpose.

4.8.1 Consent

Permission to use customer's views for the purpose of this study was sought from Principal Operations Manager (Planning). He provided me with KPA customers contact list and an introduction letter to customers confirming that I was a KPA employee studying at WMU. Additionally, a consent and introduction letter (appendix I & II) were attached to the questionnaires issued to respondents. In that regard, all the information used in this study was voluntarily given.

4.8.2 Confidentiality and Anonymity

The respondents were assured of utmost confidentiality for any information provided and were to be solely used for academic purpose for the study in question. Therefore, section A of both questionnaires, providing the name was optional. The questionnaires were also made available for them to fill at their own discretion and return within a specified period of time. No correction was allowed after submission and any error from the respondent, the questionnaire was treated as invalid.

4.9 Study Limitations

The initial response rate was very discouraging. An accompanying stamped and signed introductory letter from the university was attached to the questionnaires to emphasize the importance of the study and initiate quick response rate. Frequent email prompts and short messaging were used to follow up on respondents.

Received filled questionnaires were 45 and 55 for customer and employees respectively. After discarding the incomplete/invalid questionnaires 42 and 53 valid remained. This interrupted the targeted number of 100 responses to complete this study. However, the remaining portion being 79 % was deemed appropriate.

Secondly, the biggest challenge was getting the customers to respond to the questionnaires since KPA was undergoing a management crisis during the period. The crisis which led to more than a week's vessel's delay was caused by massive congestion in the port. These issues exasperated customers thus were not willing to respond to the questionnaires. This is expected to affect their responses hence leading to biased opinions. Due to this fact, this study may not permit a detailed true picture to determine the impact of CRM on KPA performance. This implies that if data was collected at another point of time, it could have yielded different results.

Similarly, biased results could be experienced since the subject matter is subjective to individual perception and lack of familiarity with the concept. CRM is still considered to be at its infancy stage in ports industry. Based on this fact, the data could lead to some errors thus affecting the reliability and validity of the study. Moreover, is the fact that KPA is the only port in Kenya and the only hub port in the region, thus customers lack options hence lack of benchmark. This forms a basis for further research in this topic in a country where ports in close proximity are competing for the same hinterland.

Furthermore, this work is based on assumptions as elaborated in the conceptual work that CRM system is the basis for customer satisfaction, where customer finds value from the high quality services rendered by the port. Customer satisfaction yields loyal customer who contribute to profits of the port. Since this is based on customer's subjective opinions, it may lead to biased results.

The third limitation was the time and financial constraints which could not permit a comprehensive research on the subject matter which needed to venture CRM into the port industry, a subject which has received less attention from the scholars. In that regard, future research can explore more in this area.

Lastly, the data was collected from a very limited sample within Mombasa. As earlier described, KPA serves both its domestic and regional market. This study did not include views of the customers beyond Mombasa where the port is located and neither the shipping lines. Therefore, the study only presents a cross sectional view of the research. This omission was necessary because of the limited time frame for the study and collecting data in absentia.

Of much significance is the fact that the study was undertaken on a public port enjoying monopoly. Accordingly, it would be appropriate to apply the research model to other research context such as a privatized port, in an oligopoly market.

4.10 Conclusion

This chapter main emphasis was related to the research methodology employed in this study. It shows that data was obtained through both qualitative and quantities data. The data collection method has been discussed with regard to questionnaire survey. In addition, the validity and reliability measures undertaken were discussed so as to clear the way for the following chapter which presents the analysis of the results.

Chapter Five

5.0 Data Analysis and Findings

5.1 Introduction

This chapter will discuss the overall responses to both sets of questionnaires and the achieved results. The data is analyzed to identify, describe and explore the relationship between CRM concept, customer satisfaction, loyalty and performance. In any data analysis, a thorough initial examination is deemed vital to check data quality, give descriptive summary and help develop an appropriate model (Chatfield, 1985). The analysis and discussion of findings are presented and discussed on a section to section basis following the questionnaire structure and analyzed as regard to table 5.1.

Table 5. 1: Questionnaire Content

Questionnaire Content	Evaluating Items	Evaluating Scales
Basic data	Nominal	Nominal Scales
CRM	- Service quality on customer support - Customer value	Likert five-point scale Strongly disagree/ dissatisfied (1) to Strongly agree/ satisfied (5)
Customer Satisfaction	-Satisfaction with service quality elements and the organization in overall.	
Customer loyalty	-Customers willingness to share positive experiences, -Re-patronize KPA services, -Value of the relationship	
Performance	-Ability for the port to identify, create and maintain its customers.	

5.2 Data Analysis Methods

SPSS software was used to measure the results and perform descriptive analysis on the data. Regression analysis is used to describe and evaluate the relationship between DVs and IVs.

5.3 Questionnaire Response Rate

Table 5.2 illustrates an overview of the questionnaires response. Out of 120 questionnaires issued, 100 was received back fully completed and 95 were valid for inclusion for the analysis. Given the time constraint this 79% was considered sufficient to complete this study.

Table 5. 2: Questionnaire Response Rate

Respondents	Distributed Questionnaires	Returned/ Filled Questionnaires	Discarded/Spoiled	Effective Questionnaires	Response Rate %
Customers	60	45	3	42	70%
Employees	60	55	2	53	83%
Total	120	100	5	95	79%

5.4 Demographic Details

The customers' respondents output details are as presented in table 5.3.

The first column shows type of companies which responded where five categories responded at a ratio of 50:33:10:5:2. This may not show a fair representation of each category but is justified by the fact that Kenya is an importing nation hence justifying bigger representation of logistic firms and forwarders. Importers/ exporter frequency was low since the data is from the county's main importer of grain (Grain Bulk Handlers- GBH) and exporters of tea and soda ash (Kenya Tea Development Association-KTDA, Magadi Soda). Their input was considered very important to the study since they are key customers to KPA.

The respondent's position table shows management (GM, MD, OM, CC) to operations staff (DE, SA, and SC) ratio of 55:45. This means that the study has a close range of

representation from both sides. This will justify any mean variations or high standard deviations since management experiences are different to junior staff because of a wide gap created by the organization culture. This is important to show the different variations of service customers get depending on the positions they hold. Furthermore, even though the management decides on key issues, it is the operational staffs who frequently interact with KPA staff hence are in position to give a clear picture of KPA operations.

Table 5. 3: Customers Respondents Details

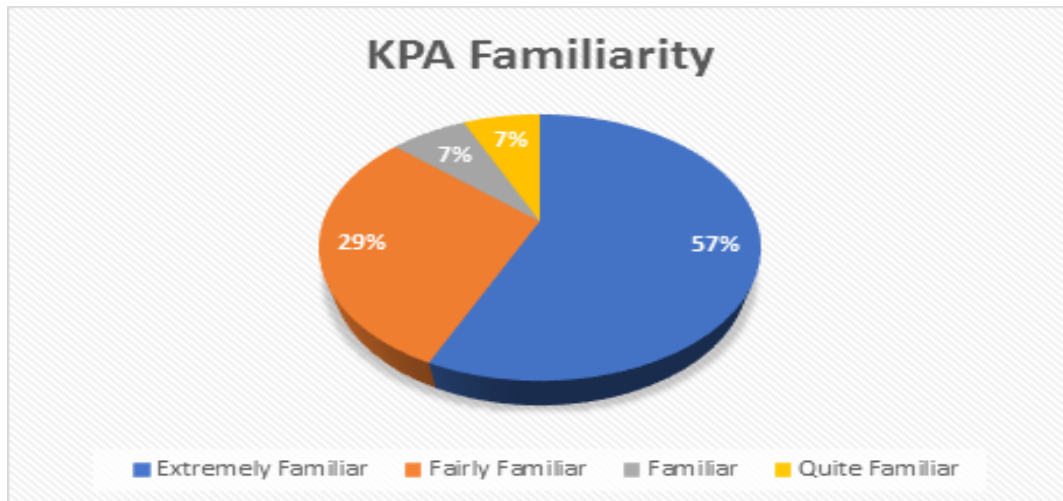
Type Of Company	Frequency %	Position	Frequency %	Sample Size
Logistics	50 %	Operations Manager(OM)	35.7%	42
Forwarder	33.3 %	Documentation Executive (DE)	26.2%	
C & F	9.5 %	Senior Clerk (SC)	14.3%	
Exporter	4.8 %	General manager (GM)	9.5%	
Importer	2.4 %	Managing Director(MD)	7.1	
		Senior Accountant (SA)	4.8%	
		Credit Controller(CC)	2.4%	
Total	100		100	

5.5 Results of the General Questions

5.5.1 Familiarity with KPA activities

Targeted customers' population had to have been in the industry for more than five years. The analysis shows that 57% were extremely familiar with KPA activities followed by 29% who were fairly familiar as shown in figure 5.1. This represents 86% of the total sample. This implies that the respondents have sufficient knowledge and practical experience with KPA and therefore can provide reliable and accurate information.

Figure 5. 1: Familiarity with KPA

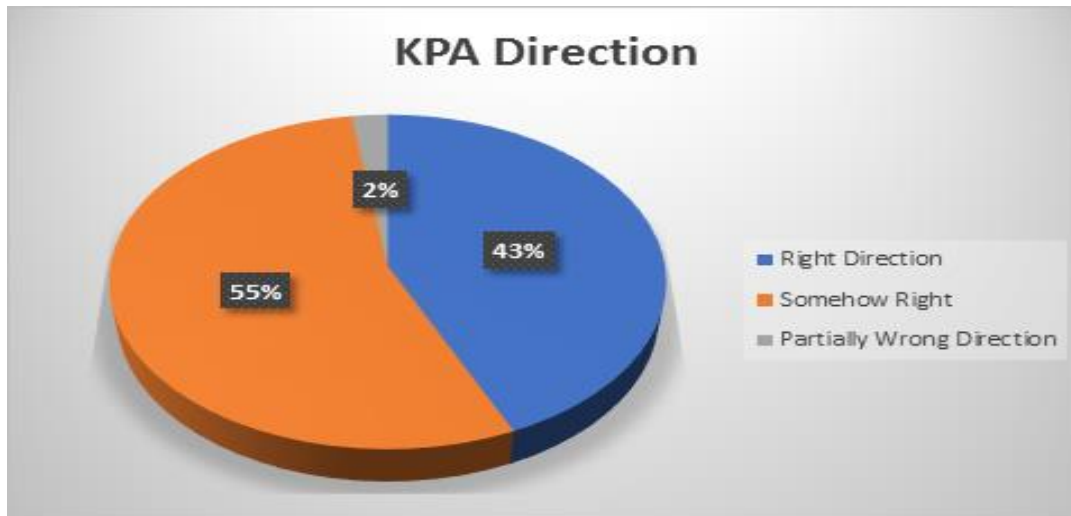


5.5.2 Results on KPA's achievement of its Vision

KPA vision is to become a world class sea port of choice. Among its six objectives, its first objective is to improve service delivery and customer satisfaction (refer to figure 1.5 page 7). It is important to measure progress to see whether the objectives are being met and correct any deviations. Therefore, this question was asked to solicit customers' opinions since they are the consumers of the service hence in a better position to evaluate KPA progress.

Their opinion as indicated in figure 5.2 shows that 55% of the customers felt that KPA is somehow in the right direction whereas 43% felt KPA was on the right track whereas 2% felt that something was amiss. KPA top management need to go back to the drawing board and check their strategic plans and correct where they have deviated from the plan.

Figure 5. 2: KPA Direction



5.5.3 Results on what Customers value

Customer value determines non- financial measurement of customer's needs. Figure 5.3 results indicate that 75% customers preferred higher quality of service over pricing at 25%. This answer shows the identification of customers needs and the importance for tailoring KPA value offering to suit the needs of the customer. Therefore, KPA needs to emphasize on improving the quality of its services so as to satisfy its customers.

Figure 5. 3: Customer Value



5.5.4 Results on customer's opinion on the greatest obstacle in offering quality services

Five choices were carefully thought out as part of contributing factors hindering KPA from offering quality services for customers to select one out of the five. Results indicate (table 5.4) that uncooperative employees (35.7%) and very slow processes (35.7%) contribute to the biggest challenges that KPA management have to overcome. These point out clearly the green areas that KPA need to improve on so as to provide exceptional services. From the literature, the importance of aligning people, process and technology were highlighted as key to successful CRM initiatives. These are the same which have been rated as the greatest weakness. This means customer satisfaction, loyalty and improved performance cannot be achieved unless drastic measures are undertaken to overcome uncooperative employees and slow processes among other hindering blocks.

Table 5. 4: KPA greatest weakness

Particulars	Frequency	Total %	Cumulative %
Too Slow Processes	15	35.7%	35.7%
Customer Needs Insensitive	9	21.4%	57.1%
Uncooperative Employees	15	35.7%	92.9%
Poor Customer Feedback	2	4.8%	97.6%
Customer Bias	1	2.4%	100%
Total	42	100%	100%

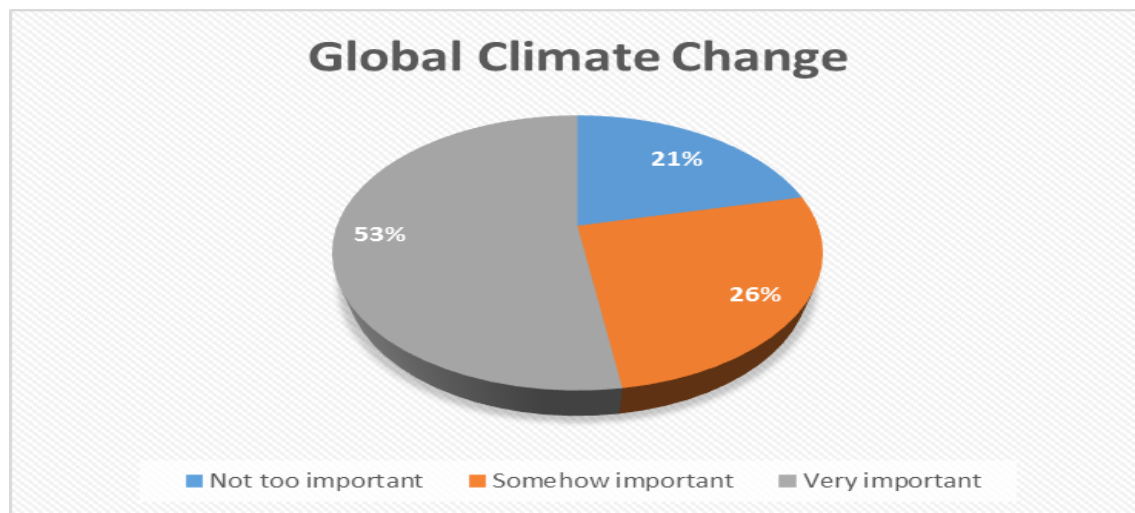
5.5.5 Results on Global Climate Change

Among the challenges the shipping industry is undergoing is the need to combat climate change and its impact by promoting climate resilience in research and technology (UN) as stipulated in goal 13 of the Sustainable Development Goals (SDGs).

Customers opinions regarding impacts of climate change are as shown in figure 5.4. The results indicate that 53% of customers consider climate issue an important aspect in their business representing more than half of the total sample. This therefore implies that KPA need to devise ways on how it can participate in reducing emission of GHGs. This is a

very important aspect in competing ports within vicinity as ports which do not heed the call lose customers who value climate management. Furthermore, the business world has taken to green technology such that the end user wants to consume goods which have been handled in an eco-way. Thus KPA can be use this to improve on its image by going green as indicated in chapter 3 figure 3.1 page 26.

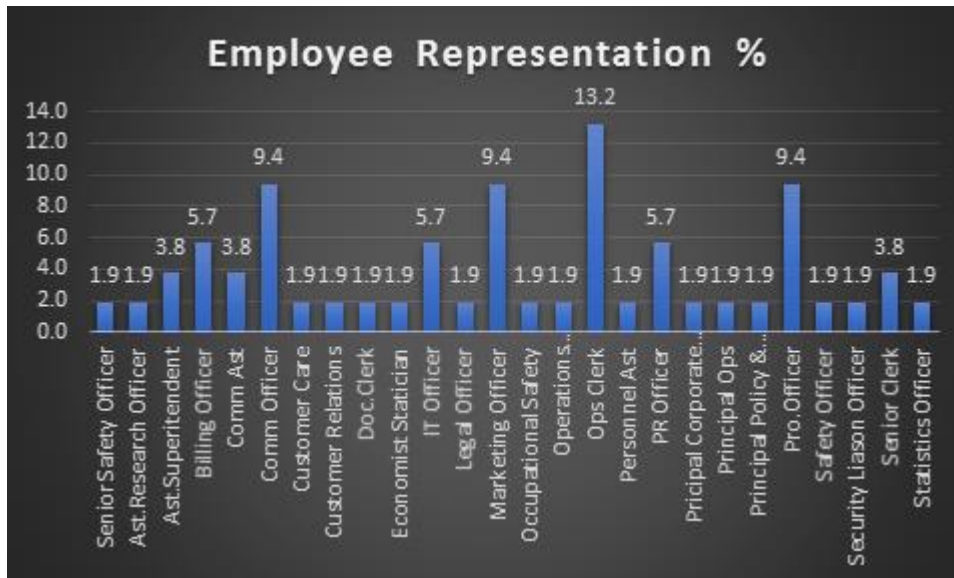
Figure 5. 4: Results on Climate Change



5.6 Employees Respondents Details

Table 5.2 show employee's response of 83%. The respondent's positions as indicated in figure 5.5 show a wide distribution representation. It was considered important to have such a wide distribution to enable the study have diverse perspectives from each area which directly deals with customers. The staff respondents were both senior managers, junior managers and the junior staff. This therefore means that the results are not biased and can be relied upon to produce accurate discussions and recommendations.

Figure 5. 5: Employees designation



5.7 Descriptive Analysis Findings

This analysis is based on how the respondents responded to the survey questions related to four latent constructs CRM, customer satisfaction, loyalty and port performance. The results are analyzed through their mean (central tendency) and standard deviation (dispersion). Customers results are presented in detail followed by a brief presentation of general overview of employee's data analysis.

5.7.1 Service Quality

SQ and customer value were used as CRM sub-constructs where respondents were asked to rate the quality of service they receive in KPA. The results as indicated in table 5.5 show that all dimensions' mean was above 3.0 (satisfied). Based on the mean results, KPA objective to offer satisfactory services to its customers through provision of modern cargo handling equipments is the PSQ item which received highest level of unanimity. This was followed by outcome dimension and management being the least satisfactory dimension (3.32).

This implies that KPA has sufficient resources to deliver quality services and be competitive in the market. However, its performance level is hampered by management commitment and processes, hence these defects need to be corrected. These results tally with the results on KPA greatest weakness where it was highlighted that process and people were the greatest obstacle. However, based on the fact that all the mean scores were > 3.3 but < 4 implies that KPA is just offering satisfactory services and has to devise strategies which can improve on all aspects of its service quality so as to provide exceptional services. CRM comes in to realign these processes to ensure achievement of KPA objectives.

Table 5. 5: Results on the Port Service Quality

Particulars	Mean	Std. Deviation	Rank
Resources	3.8143	.55943	1
Outcome	3.6905	.59132	2
SRImage	3.3869	.62029	3
Process	3.3542	.57774	4
Management	3.3214	.50792	5

*Mean values used to rank measurement items.

5.7.2 Customer Value

Customer value was measured using two items: perceived (CPV) and desired value (CDV). An overall mean shows a mean of 3.77 and 3.25 for CPV and CDV respectively. Table 5.6 presents the results per each measurement item of each sub construct. As indicated in the literature that customer value influences customers purchase decisions, it is important for KPA to ensure that they improve the quality of services since customers value is derived from their perception on what they receive from what they have given. A mean of 3.7 (satisfied) is not impressive since low customer value reduces customer's satisfaction and loyalty. KPA should measure customers value and design a marketing mix which satisfies its customers. Desired value is a key aspect since it points out what the customer want but is not provided. KPA should mostly emphasize on correcting

CDV_V1 with a mean of 2.5 (dissatisfied) which shows customers desire for their complaints to be sorted out promptly.

Table 5. 6: Results on Customer Value

Particulars	Mean	Std. Deviation	Rank
CPV_V1	4.2381	.79048	1
CDV_V3	3.9762	.86920	2
CPV_V2.	3.7857	.92488	3
CPV_V3	3.3333	.75439	4
CDV_V2.	3.3095	.74860	5
CDV_V1	2.4524	1.13056	6

*Mean values used to rank measurement items

5.7.3 Customer Satisfaction

Table 5.7 shows seven items used to measure satisfaction. The results indicate KPA efforts to enhance efficient communication flow between the organization and its customers (CS_V7) as the most important aspect that customers are most satisfied with (3.595). Compared to SQ dimensions means, it is observed that satisfaction means are very low with 3.0 being the lowest mean unlike SQ dimension at 3.3. This implies that even though KPA strives to keep up with the changes in the industry by investing in modern equipments, customer satisfaction doesn't not entirely depend on it. This is evidenced by the complete different scenarios on the mean values of the two constructs. There's a great need for KPA to create a balance across all six aspects of SQ and not only concentrate on updating its suprastructure and infrastructure so as to provide greater level of satisfaction to its customers. This aspect being the main objective of the organization, KPA needs to check where the organization plan of achieving its objectives has deviated from its plan and correct it.

Table 5. 7: Results on Customer Satisfaction

Particulars	Mean	Std Deviation	Rank
CS_V7	3.5952	.82815	1
CS_V3	3.5238	1.08736	2
CS_V1	3.5238	.70670	3
CS_V6	3.4524	.67000	4
CS_V2	3.2143	1.20032	5
CS_V5	3.1429	1.11686	6
CS_V4	3.0476	.93580	7

*Mean values used to rank measurement items

5.7.4 Customer Loyalty

The dimension was used to determine customer's level of loyalty to the organization. Table 5.8 presents the results which indicate that customers agreed unanimously that they would continue using KPA services (CL_V3) although KPA did not deserve their loyalty (CL_V4) as the item was the lowest ranked with a mean score of 3.1667. In comparison to customer satisfaction mean scores, although all loyalty mean scores are < 4 its lowest mean is > 3.16 as compared to satisfaction (3.05). This means that KPA has a lot to improve on to achieve higher customer loyalty. However, this could be one of the rare occasions as explained in the literature where it highlighted that a customer may be loyal because of lack of choices. Therefore, as pointed out in customer's satisfaction results, KPA needs to improve on its management dimension since critical decisions which determine ports success such as implementing CRM, allocation of resources is done at management level.

Table 5. 8: Results on Customer Loyalty

Particulars	Mean	Std. Deviation	Rank
CL_V3	3.5476	1.01699	1
CL_V2	3.5000	1.04181	2
CL_V5	3.4524	1.15193	3
CL_V1	3.1667	.85302	4
CL_V4	3.1667	1.12438	5

*Mean values used to rank measurement items

5.7.5 Performance

The role of CRM, satisfaction and loyalty in enhancing port performance was measured using six items. Customers agreed in unison at a mean of 4.5, PCE_V3 and PCE_V2 (table 5.9) that customer oriented service and KPA adaptation to customers needs will make them happy and increase port's performance. At a mean of 3.7(agree) customers agreed that KPA was passionate about establishing long and beneficial relationships with its customers. This means that KPA is on the right track in its efforts to maintain close relationship with its customers. However, at the lowest mean of 2.3, (disagree) was a measurement item to determine the current position of whether KPA services exceeded customer's satisfaction. The results indicate that KPA services are wanting and something needs to be done.

Table 5. 9: Results on Performance

Particulars	Mean	Std. Deviation	Rank
PCE_V3	4.4762	.80359	1
PCE_V2	4.4762	.77264	2
PCE_V5	4.3095	.81114	3
PCE_V1	3.7857	1.00087	4
PCE_V4	3.1190	.94230	5
PCE_V6	2.3810	.96151	6

*Mean values used to rank measurement items

Moreover, a descriptive analysis was conducted to ascertain the most satisfactory of the four components; SQ, customer value, customer satisfaction and loyalty and the results (table 5.10) indicate that customer value and SQ had the highest mean at 3.5 whereas customer satisfaction at lowest of 3.3. All the components are at the satisfactory level, hence the need for the port to re-strategies and implement CRM management system to enhance its relationships.

Table 5. 10: Most satisfactory construct

Particulars	Mean	Std. Deviation	Rank
Customer Value	3.5159	.53192	1
Service Quality	3.5135	.45733	2
Customer Loyalty	3.3667	.72840	3
Customer Satisfaction	3.3571	.56815	4

*Mean values used to rank measurement items

5.8. KPA Marketing Mix Analysis

Table 5.11 shows a summary of KPA marketing mix as perceived by its customers. The results show that physical evidence dimension was highly ranked with a mean score of 3.81 and the least being people (3.3) and promotion (2.55). This justifies all the results as discussed above. This therefore shows that the main problem is the design of the port marketing mix which needs to be corrected and right mix created. All items need to be balanced for better results.

Table 5. 11: Results on the Marketing Mix

Marketing Mix Dimension	Measured Items	Mean
Product/Service	PE_V1,PE_V2,PE_V3,PE_V4,PE_V5,PE_V6	3.651
Price/ Cost	PRI_V1,PRI_V2,PRI_V3,PRI_V4	3.321
Promotion	PRO_V1,PRO_V2,PRO_V3,PRO_V4,PRO_V5	2.557
Place/ Location	Not measured since KPA is the only port in Kenya	N/A
Physical Evidence	R_V1,R_V2,R_V3,R_V4,R_V5	3.8143
Process	P_V1,P_V2,P_V3,P_V4,P_V5,P_V6,P_V7,P_V8	3.3542
People	PPL_V1,PPL_V2,PPL_V3,PPL_V4	3.3035

5.9 Employees Data Analysis

KPA employee's data is presented to provide an overview of their input into the organization success by determining how satisfied they are with the mentioned measurement items as indicated in table 5.12. Employees are internal customers to the organization hence their input considered to be important for success of the study. The results indicate that employees agreed in unison that KPA provides sufficient physical facilities such as offices, safe working areas and public areas at a mean of 4.1; satisfactory organizational benefits at 4.06 and agreed that KPA is making enough to efforts to maintain beneficial relationships with its customers at mean of 4.05 (fairly satisfied).

However, the five lowest measurement constructs as mentioned in the literature review are among the factors considered to be fundamental for CRM success. This implies that much as KPA is delivering on other areas, the most important areas which determine quality services such as the need to motivate employees, effective leadership and communication and training need to be worked on.

Table 5. 12: Results on Employees

Particulars	Mean	Std. Deviation	Rank
Physical Facilities	4.1094	.54852	1
Organization Benefits	4.0660	.63388	2
CRM Performance	4.0453	.65942	3
IT	3.7509	.65505	4
KPA Objectives	3.7472	.73186	5
Satisfaction	3.6981	.75205	6
Teamwork	3.6491	.75743	7
Safety	3.5887	.68097	8
Employee Motivation	3.4302	.70862	9
Leadership	3.3321	.75033	10
Communication	3.2528	.78265	11
Training	3.0679	.86642	12
Remuneration	3.0566	.87519	13

*Mean values used to rank measurement items

5.10 Factor Analysis Results

Churchill et al. (2013) describes factor analysis as a tool whose main purpose in a study is to reduce the number of variables which explain the same scenario. Varimax rotation and Eigen value larger than one (> 1) were used in this study to identify the most crucial dimensions for CRM, satisfaction, loyalty and performance analysis. Kaiser (1974) suggested that Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is used to find goodness of fit when KMO is larger than 0.7 (> 0.7). He additionally states that p-value is acceptable when smaller than 0.05 (< 0.05). Therefore, in this study the two criteria are used to analyze the model as shown in table 5.13 and 5.14.

Table 5. 13: Rotated Component Matrix on CRM Attributes

Particu lars	Service Quality	Custo mer Value	Satisfa ction	Loyalty	Perfor mance	Total Variance explained	Cumulative Variance explained	KMO/ P- Value
R_V1	0.838					7.765%	7.765%	KMO- 0.717 P-0.000
O_V1	0.796					7.021%	14.786%	
O_V5	0.816					6.982%	21.768%	
P_V3	0.726					6.341%	28.109%	
P_V8	0.719					5.709%	33.818%	
M_V1	0.742					5.073%	38.891%	
M_V2	0.822					4.589%	43.480%	
M_V4	0.778					4.319%	47.799%	
M_V5	0.874					4.156%	51.955%	
SRI_V2	0.797					4.047%	56.002%	
SRI_V4	0.880					3.840%	59.842%	
CD_V2		0.718				3.584%	63.426%	
CS_V4			0.802			3.426%	66.851%	
CS_V5			0.823			3.417%	70.268%	
CL_V1				0.752		3.350%	73.619%	
CL_V4				0.704		3.275%	76.893%	
PCE_V2					0.913	3.145%	80.038%	
PCE_V3					0.883	2.889%	82.927%	
PEC_V4					0.863	2.531%	85.458%	
Total						85.458%		

The results in table 5.13 indicate that 52 items were reduced to a parsimonious 19 scale items which meet the assumptions and requirements. The variables altogether account for approximately 85% of the total variance hence considered adequate to explain 85% of the model. Moreover, their KMO and p-value are 0.717 and 0.000 respectively. Eliminated variables which did not meet the criteria are as shown in table 5.14. These variables were removed because their factor loadings were lower than 0.7 (Hair & Babin, 2006).

Table 5. 14: Eliminated Variables

Service Quality	FL	Custo mer Value	FL	Custo mer Satisfac tion	FL	Custom er Loyalty	FL	Perform ance	FL
R_V2	0.612	CD_V1	0.607	CS-V1	0.599	CL_V2	0.554	PCE_V1	0.643
R_V3	0.462	CD_V3	0.563	CS_V2	0.564	CL_V3	0.586	PCE_V5	0.696
R_V4	0.447	CP_V1	0.577	CS_V3	0.408	CL_V5	0.462	PCE_V6	0.688
R_V5	0.559	CP_V2	0.605	CS_V6	0.411				
O_V2	0.574	CP_V3	0.630	CS_V7	0.572				
O_V3	0.530								
O_V4	0.479								
P_V1	0.512								
P_V2	0.550								
P_V4	0.470								
P_V5	0.512								
P_V6	0.567								
P_V7	0.633								
M_V3	0.688								
M_V6	0.479								
SRI_V1	0.655								
SRI_V3	0.622								

*FL- Factor loading

5.11 Multiple linear regression analysis results

5.11.1 Correlations Results

Total correlation analysis was used to identify consistency of the variables. Consistency of a value was determined through a construct value of greater or equal to $\geq .0159$ as indicated in table 5.15.

Table 5. 15: Correlations Results

		Customer Value	Performance	Service Quality	Customer Loyalty	Customer Satisfaction
Customer Value	Pearson Correlation	1	.402**	.780**	.515**	.494**
	Sig. (2-tailed)		.008	.000	.000	.001
	N	42	42	42	42	42
Performance	Pearson Correlation	.402**	1	.673**	.655**	.508**
	Sig. (2-tailed)	.008		.000	.000	.001
	N	42	42	42	42	42
Service Quality	Pearson Correlation	.780**	.673**	1	.672**	.684**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	42	42	42	42	42
Customer Loyalty	Pearson Correlation	.515**	.655**	.672**	1	.703**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	42	42	42	42	42
Customer Satisfaction	Pearson Correlation	.494**	.508**	.684**	.703**	1
	Sig. (2-tailed)	.001	.001	.000	.000	
	N	42	42	42	42	42
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 5.16 shows how strongly related the variables used are to each other.

Table 5. 16: Results Interpretation

Strong relationship between variables	Values
Service quality and customer value	.780
Service Quality and performance	.673
Customer loyalty and performance	.655
Customer loyalty and service quality	.672
Customer satisfaction and service quality	.684
Customer loyalty and Satisfaction	.703

5.11.2 Regression Analysis

Adjusted R^2 will be used instead of R^2 to explain how much IV is explaining the model. This is because adjusted R^2 corrects the model thereby giving more accurate values compared to R^2 (Yan et al., 2009). P-value is the value used to ascertain whether the model is a statistically predictor of the true outcome. This implies that it gives a true prediction of what happened in the population. A value of less than .005 ($\leq .005$) shows that the variables predicted the model well and not by chance hence the significance of the model. The standardized coefficients show the beta level which is the percentage value explaining the outcome, whereas the unstandardized coefficients are used to draw an equation. The significance column determines if the IV are making any significant contribution to the outcome. The value should be less than or equal to 0.05 ($\leq .05$). A value greater than 0.05 implies that the variable is not making any significant contribution to the outcome.

The results from the table 5.17 indicate that, hypothesis 1a and 3 do not meet the requirements since they have a p-value of .139 and .298 respectively. Additionally, their IV's equally show that the variables do not explain the models since their p-value figures are equally greater than 0.05. In that regard, the two hypotheses will not be explained in the study.

Table 5. 17: Hypotheses results

	Particulars	R ²	Adjusted R ²	Correlation	P-Value	Un-standardized Coefficient	Standardized Coefficient	Significance
1a	Constant	.096	.050	1.000	.139	.790		.493
	SQ			.310		.679	.381	.083
	CV			.151		-.026	.222	.905
1b	Constant	.328	.294	1.000	.000	-.503		.616
	SQ			.507		.721	.338	.036
	CV			.497		.391	.316	.049
2	Constant	.194	.174	1.000	.03	1.955	.441	.000
	CS			.441		.445		.003
3	Constant	.164	.003	1.000	.298	3.3734		.000
	CS			.164		.94	.164	.298
4	Constant	.107	.084	1.000	.035	3.411		.000
	CL			.327		.184	.327	.035
5	Constant	.561	.524	1.000	.000	1.322		.01
	Employee training			.501		-.152	-.199	.214
	Employees Satisfaction			.649		.191	.217	.322
	Teamwork			.591		.115	.133	.461
	KPA objectives			.722		.551	.611	.000

*Blue color- Rejected hypotheses

* No color- Accepted hypotheses

The accepted hypotheses are as discussed in table 5.18

Table 5. 18: Analysis of Accepted Hypothesis

Hypothesis	Analysis	Discussion
1 B CRM has a significant positive relationship with customer loyalty following customers' satisfaction on KPA's SQ and CV.	<ul style="list-style-type: none"> ➤ In this regression relationship, the adjusted R^2 is .294, which means that both SQ and CV can explain about 29% of customer loyalty in this model. ➤ The p-value of this model is 0.00 which means that the model is significant at ≤ 0.05. It also shows that service quality contributed 33.8% and customer value 31.6% to customer loyalty. ➤ SQ and CV p-value is .03 and .04 respectively thus are both (≤ 0.05) significant. This means that this hypothesis is supported by this model. 	<ul style="list-style-type: none"> ➤ KPA should improve more on its quality of service since it contributes more to the customer's loyalty to the organization. By doing so customers value increases and so will customer loyalty.
2 Customer satisfaction has a significant positive impact on customers' loyalty.	<ul style="list-style-type: none"> ➤ The regression relationship results show an adjusted R^2 of .174. This means that customer satisfaction can explain about 17% of customer loyalty in this model. ➤ Customer satisfaction has a significant positive impact on customer's loyalty at about 44%. Moreover, its p-value is 0.003 (≤ 0.05) meaning that the explained variation of the model is significant. ➤ The p-value of the model is .03 which is less than ≤ 0.05 meaning that the explained variation of the model is significant. This means that the model approves that customer satisfaction has a significant positive relationship with customer loyalty. 	<ul style="list-style-type: none"> ➤ KPA need to improve their level of services so that customer satisfaction can be improved. This can be achieved by providing personal services where every transaction is treated as unique. ➤ Need of having experienced and well trained staff who can deliver the personalized service. ➤ This will help the organization gain more loyalty from its customers since customer satisfaction has a positive impact on customer's loyalty.
4 Customer loyalty has a significant positive impact on port performance.	<ul style="list-style-type: none"> ➤ The results of the regression relationship between customer loyalty (IV) and performance (DV) show an adjusted R^2 of .084. This means that customer loyalty can explain about 8% of performance in this model. ➤ The p-value of this model is 0.035 (≤ 0.05) showing that the explained variation of the model is significant. ➤ Customer loyalty contributes about 33% of KPA's performance thus customer loyalty is significant in improving KPA performance. 	<ul style="list-style-type: none"> ➤ Hence KPA has to work on maintaining long term and beneficial relationships with its customers since it adds to its performance. This can be achieved by putting the right processes in place and right management.

	<ul style="list-style-type: none"> ➤ The p-value of customer loyalty to performance is 0.03 (≤ 0.05) showing that the hypothesis holds true. 	
5 Employees engagement and organization's objectives have positive impact on successful CRM implementation	<ul style="list-style-type: none"> ➤ The hypothesis is based on employee's engagement and organizations objectives as contributory factors to successful implementation of CRM where employees training, satisfaction and teamwork are used to measure employees' engagement. ➤ The results show an adjusted R^2 of .524 meaning that these measurement items can explain 52 % of the model. ➤ A p-value of 0.000 (≤ 0.05) of the model indicates that the explained variation of the model is significant. ➤ The organization's objectives dimension is the most important dimension contributing about 61% to successful implementation of CRM. It is followed by employees' satisfaction at about 22%. However, the regression results show that the hypothesis only holds true because KPA objectives dimension has a p-value of 0.000 while the rest of dimensions had a p-value (> 0.05). 	<ul style="list-style-type: none"> ➤ KPA management should note that CRM objectives form the basis successful implementation of CRM. ➤ Employees engagement is equally important hence the need to have experienced and professional employees in place. ➤ There should be an emphasis on continuous training to adapt to the changes in the industry.

5.12 Conclusion

The chapter has presented the descriptive analysis of the questionnaire survey conducted on port employees and customers which the average response rate was 79% and 83% respectively. A summary of respondents' characteristics and their nature of work was equally provided. Analysis of respondents shows that the sample was sufficient enough to provide the study with the desired information. Therefore, all results presented have true representation of the desired sample.

The three constructs CRM, customer satisfaction and loyalty and their relation to port performance were analyzed using descriptive statistics and the hypotheses of the study tested through regression analysis. Results achieved show that four out of the six proposed hypotheses hold true.

Chapter Six

6.0 Discussion of the Findings, Summary, Recommendations and Conclusion

6.1 Introduction

The objective of this study is to examine and understand the role played by CRM in delivering customer satisfaction and loyalty and the overall impact on port performance. To achieve this objective, the following research questions were developed:

RQ 1. How does CRM help in maintaining beneficial relationships with customers?

RQ 2. How is CRM related to customer satisfaction and loyalty?

RQ 3. What is the relationship between customer satisfaction, loyalty and ports performance?

RQ 4. How does service encounter and technology enhance port's performance?

6.2 Research findings and its Implications.

The main findings and implications of this study have been approached based on the research questions provided.

6.2.1. Maintaining beneficial relationships with customers through CRM.

Hypothesis 1b confirmed that CRM has a positive impact on customer loyalty following customer's satisfaction on KPA service quality and customer value. This means that CRM is important since it generates loyal customers through provision of high quality of services and enhanced customer value. Therefore, KPA should integrate its processes,

technology and people as explained in (figure 2.1 page 18 chapter two) for successful implementation of CRM. Furthermore, these are the areas which were identified as key factors barring KPA from achieving its objective of satisfying its customers as shown in the previous chapter.

Using technology to create synergy between KPA's processes, employees and customers guarantees quality and consistent services across all customer contact points which enhances smooth running of the organization. This will result to improved customer value and quality services. A marketing adage goes "A satisfied customer complains less".

6.2.2 Relationship between CRM, Customer Satisfaction and Customer Loyalty

This study summarized CRM dimensions into two sub constructs; the need to provide customers with quality services and create value for customers. It assumed that providing the best of the two which are enabled by having correct CRM systems in place, will enable KPA attract and maintain long lasting relationships with its customers. This is because CRM practices will generate satisfied customers who will want more of the organizations services and share their positive experiences with potential customers.

Hypothesis (1b) was confirmed that CRM has significant impact on customers' loyalty following their satisfaction with KPA services. Hypothesis 2 was also confirmed that customer satisfaction has a positive relationship with customer loyalty.

From descriptive statistics, results on quality service and customer value show that they had an average mean of 3.51 and 3.52 respectively (satisfactory). This shows that KPA customers are satisfied with services they receive but not very satisfied. KPA need to improve on its service level so that it can offer exceptional services (5) so as to increase customer's satisfaction which will enhance customer's loyalty and can deter them from seeking services from elsewhere.

From the descriptive statistics between customer satisfaction and loyalty, the later mean average was higher than satisfaction meaning that customers are more loyal irrespective of their satisfaction. This is based on the fact that KPA is the only port in the country

therefore, even though customers are not satisfied with KPA services, they have no other choice other than continue seeking KPA services. KPA lacks incentive to provide competitive services due to lack of internal or external competition since it acts both as the port authority and port operator.

CRM aims to maintain long-term profitable relationships with the customers. A long term relationship cannot be maintained by just providing satisfactory services that a competitor can provide. To exceeded customer's expectations, KPA needs to provide exceptional services (rating of 5) irrespective of lack of competition.

To achieve this objective, KPA need to put an emphasis on the areas which deter the organization from providing excellent services as this is the source of customer's satisfaction. The results reveal that KPA management, process and its image are the major obstacles to providing quality services.

An efficient marketing mix is considered to be key in creating an appealing proposition to the customers. The results of the marketing mix show that KPA marketing mix is below par since it satisfies the customers at an average of 3.3. This is the source of the problem. Unless the marketing mix is properly designed, the organization will not be able to deliver exceptional quality services or create customer value which is considered to be the source of customer satisfaction and loyalty.

6.2.3 Relationship between customer satisfaction, loyalty and ports performance?

This research question is considered to be critical for success of this study. Therefore, it is important to identify the customers most satisfactory and loyalty attributes. This is because these are the indicators of customers' source of satisfaction and loyalty. As earlier stated that CRM is all about creating value for the two parties, when KPA satisfies its customers, they in return become loyal to the organization.

Based on the first three means of the two constructs, the measures exhibiting most satisfaction to customers is reported as: efficient information flow between KPA and customers' firms (3.59); KPA's ethics and integrity (3.52); fair pricing (3.52). The expected returns to KPA from its customers comprise of: continue to patronize KPA service (3.54);

share positive experiences with potential customers (3.5); customers' perception on how much they thought KPA valued them over the organizations short term goals (3.45).

The results show that KPA is satisfying its customers the best through the mentioned items. It therefore can rely on CRM practices to enhance its service delivery which in the long run contribute to sustained and increased market share, positive image of the organization, word of mouth promotion, satisfied employees and profitability.

Hypothesis (2) confirms that customer satisfaction has a positive relationship with customer loyalty, and hypothesis (4) confirms that customer loyalty has positive impact on port performance.

Therefore, this is a driving force for KPA to better its strengths while working on its weaknesses so as to maintain long term relationship with its customers and reap loyalty benefits as highlighted in the literature review. To maintain loyalty, KPA should ensure that it aggressively seeks out its customers' complaints by making it easy for customers to complain and timely address the complaints. KPA should also enhance its responsiveness by using technological tools such as email management, customer self-service, web promotion and so on, and more important know its customer's definition of value by investing in customer loyalty to better understand how to deliver value to the target customer.

6.2.4. How service encounter and technology enhance port's performance.

The fifth hypothesis carried out on KPA employees confirms that employee engagement and organizations objectives have impact on successful implementation of CRM. It is measured based on company objectives, employee's satisfaction with the organization, employees training and teamwork where they contribute 61%, 22%, 20% and 13% respectively.

Therefore, it is important to align the organizations objectives to CRM system and provide training to ensure CRM success. The employee's descriptive analysis results used to identify source of employee's satisfaction used attributes such as physical facilities, benefits to employees and IT. However, the factors that contribute to

employee's motivation were lowest ranked with remuneration (3.06), training (3.07), and communication (3.25).

This scenario justifies the customers rating of KPA's performance at a mean of 3(satisfied). As discussed in the literature that employees are the face of the company, if they are not satisfied with the organization, the effects are trickled down to customers thus customers are neither satisfied with employee's service delivery.

6.3 Recommendations

Based on the presented literature and confirmed hypotheses, KPA can achieve a sustainable competitive advantage in the market through CRM systems. This is because CRM systems help provide high quality of services and enhance customer value which leads to customer satisfaction and customer loyalty which in turn improves port performance. From the results achieved, KPA management can use the identified strengths to offer more customized services to its customers while improving on its weak areas such as management and processes.

It has equally been seen that technology alone is not sufficient for CRM success but an enabler to enhance the quality of services provided therefore it's a driver to successful CRM implementation. The study shows that if CRM concept is properly administered, it can contribute to long term significant economic value to the port and its customers. This is achieved when CRM system is able to enhance the ports ability to deliver high quality services and enhance customer value through its value drivers including; technology, top management commitment, process alignment, cross functional integration, employees training and professionalism among others. This will in turn generate customer satisfaction and customer loyalty. Satisfied and loyal customers generate more profits to the port through re- patronage, sharing positive experiences with potential customers. This maintains and adds to ports market share, creates good image for the port thus creating a competitive advantage for the port. However, to successively achieve this, there's need for the port to integrate its technology, process, and employees and customers so as to create synergy in the organization.

Based on employee's perspective, the results equally indicate that training, communication and leadership is below par. It is therefore important for these green areas to be critically scrutinized and corrected by analyzing the barriers to successful implementation such as; technological skills shortage, lack of top management support, poor leadership, inability of the organization to integrate, technology, employees, customers into the organizations marketing process and make necessary corrections.

Moreover, the results indicate that the rate of customer satisfaction to loyalty is lower. This shows a devastating scenario since the customers are only loyal to KPA because they lack alternatives. Irrespective of the monopoly status KPA enjoys, customers have the right to have value for their money. Hence KPA management need to reorganize their strategies to those which support customer related activities and more so develop incentives which promote CRM initiatives. For example, periodically evaluate employee's performance and reward employees who demonstrate outstanding performance in customer oriented behaviors.

Lastly, it is important to continuously monitor changes in the industry since port industry is very volatile. By monitoring these changes, A CRM port is able to continuously customize their market offering for each market segment thereby meeting their customers changing needs. Additionally, CRM will enable the port improve reliability of its services to its customers through timely adoption to the market trends. This enhances customers experience with the port hence able to attract potential customers, retain its customers.

6.4 Contribution of the research and direction for further research.

Irrespective of the aforementioned limitations as outlined in chapter four, it is sufficient to acknowledge that this study has contributed to the existing body of knowledge through filling a research gap found in the literature. It is therefore worth mentioning that the specific research objective has been achieved and the research questions answered.

This session will present the contributions to the theory from the findings of the study and suggestions for further research.

First and foremost, this study contributes to the body of CRM knowledge in the port industry based on B2B context. This has been achieved by expanding the existing CRM studies in other business sectors.

Quality services and customer value have been theorized as CRM dimensions which are conceptualized to influence customer satisfaction. Quality of services is measured through customers' satisfaction using ROPMIS model. Customers value is measured through customer perceived value and desired value. These two constructs are hypothesized to influence customer satisfaction and customer loyalty respectively. Finally, customer satisfaction and loyalty influence port performance. It should however be noted that, some of the measured constructs used in this study have been conceptualized by the author and added from analysis of the qualitative study especially CRM constructs.

As earlier mentioned very scant literature is available of this study in the port industry. Therefore, this study specifically contributes to the maritime industry studies by analyzing customer-port relationship by focusing on CRM for the first time.

The study shows that customer satisfaction does not necessarily have a direct impact to port performance irrespective of its significant role. Additionally, this, study considers that customer loyalty is derived from CRM systems which provide high quality service and customer value and neither of the two act as a standalone. This is supported by the results in hypothesis (1b) which showed that the two aspects contributed to customer loyalty at a ratio of 34:32 respectively.

Therefore, based on this study, KPA and other ports can utilize the results of this study to implement CRM. This is because CRM will enable the port to effectively compete while securing and adding to its market share through satisfied and loyal customers.

As earlier mentioned that, this study was carried out in a port in a monopoly market. Further studies will be preferably being carried out in an oligopoly market.

6.5 Conclusion

Other service industries such as bank providers have realized CRM importance. This is because CRM projects enable the firms provide higher quality of service and enhance

customer value thus contributing to higher retention and attraction rates to potential customers thus increasing the firm market share. At this point it is important to recognize the value of IT in enabling close relationships between the port and its customers. IT helps create strong coordination between port management, employees and customers. This study involved examining the role of CRM in KPA and the need for CRM to increase customer value through provision of higher quality services made possible using CRM systems.

This study has provided some guidelines on how CRM can contribute to customer satisfaction and loyalty. It has equally shown how customer loyalty leads to higher retention rate and attraction of potential customers. Moreover, it has shown the importance of employees for successful implementation of CRM in order for the port to realize CRM benefits. Therefore, KPA needs to embrace CRM as a strategy to manage its customer relationships by addressing the three key areas; people (employees and customers), process and technology. Finally, KPA should take actions to correct the key areas which were identified by both the customers and employees as KPA weak areas.

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Appendices

Appendix I

CONSENT FORM



RESEARCH ETHICS: CONSENT FORM

Project Title: Customer Relationship Management (CRM), Customer Satisfaction, Loyalty and Port Performance: A Case Study of Kenya Ports Authority (KPA).

Researcher:

Egilla Mkawuganga

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- | | Please
Box | Tick |
|----|---|--------------------------|
| 1. | I confirm that I have read and understood the information sheet regarding the mentioned study and have had the chance to clarify on what is not clear. | <input type="checkbox"/> |
| 2. | I understand that my participation in this study is based on free will and that I am at liberty to withdraw at any time without giving reason. | <input type="checkbox"/> |
| 3. | I agree to take part in the above study. | <input type="checkbox"/> |
| 4. | I give consent to my personal data as outlined in the accompanying information sheet to be used for this study and other research. I understand that all personal data relating to this study is held with utmost privacy and processed in the most confidential manner. I do thereby give my express consent of inclusion of any personal details in the research should any need arise. | |

Appendix II

a) **Customer Introduction Information Sheet**

Dear Respondent,

The questionnaire set below is aimed at completing an academic research in partial fulfilment of the requirements for the award of Master degree of Science in Maritime affairs at the World Maritime University in Malmö Sweden. The proposed title of the dissertation is: **Customer Relationship Management (CRM), Customer Satisfaction, Loyalty and Port Performance: A Case Study of Kenya Ports Authority (KPA)**. It is intended to gauge the views of KPA customers in relation to the customer orientation they receive at KPA and their expectations. You are kindly requested to feel at liberty to express your free and frank opinion in regard to the worthiness of each statement. This will provide me with information and greater insight on how KPA is perceived by its customers. Additionally, it will enable me recommend an effective and efficient business strategy to the management which can be developed to ensure provision of greater and satisfactory services to the customers. However, it should be noted that you are at liberty to withdraw from participation of answering the questionnaire at any point.

Total assurance is given that the responses will only be used in aggregate, wholly and solely for the purpose of this research and will strictly remain anonymous and confidential. After the completion, the data will be destroyed.

Your participation in the interview is highly appreciated.

Regards,

Egilla Mkawuganga

Email: w101496@wmu.se.

Telephone: +46 76 054 79 21

b) **Employee Introduction Information Sheet**

Dear Respondent,

The questionnaire set below is aimed at completing an academic research in partial fulfilment of the requirements for the degree of Master of Science in Maritime affairs at the World Maritime University in Malmo Sweden. The proposed title of the dissertation is: **Customer Relationship Management (CRM), Customer Satisfaction, Loyalty and Port Performance: A Case Study of Kenya Ports Authority (KPA)**. It is intended to gauge the employees views of in relation to the customer service they provide and their expectations from their employer. You are kindly requested to feel at liberty to express your free and frank opinion in regard to the worthiness of each statement. This will provide me with information and greater insight on how KPA is perceived by its customers. Additionally, it will enable me recommend an effective and efficient business strategy to the management which can be developed to ensure provision of greater and satisfactory services to the customers. However, it should be noted that you are at liberty to withdraw from participation of answering the questionnaire at any point.

Total assurance is given that the responses will only be used in aggregate, wholly and solely for the purpose of this research and will strictly remain anonymous and confidential. After the completion, the data will be destroyed.

Your participation in filling the questionnaire form will be highly appreciated.

Regards,

Egilla Mkawuganga

Email:w101496@wmu.se.

Telephone: +46 76 054 79 21

Appendix III

CUSTOMER QUESTIONNAIRE

The statements will be measured in a five-point scale ranging from “Highly Satisfied /agree to Highly dissatisfied / disagree” which is as below:

Rating-5 highly satisfied / strongly agree

Rating-4 fairly satisfied / agree

Rating-3 satisfied / agree

Rating-2 dissatisfied / disagree

Rating-1 highly dissatisfied / disagree

NB: *KPA, Organization and Ports will be used interchangeably and will mean the same thing.*

SECTION A

Name (optional):

Company:

Type of company (e.g. shipping line, forwarder, transporter..., etc.):

Position:

SECTION B: GENERAL ISSUES FACING KPA

1. How familiar are you with KPA activities?

- a) Extremely familiar
- b) Fairly familiar
- c) Familiar
- d) Quite familiar
- e) Not familiar

2. In general, do you think that KPA is heading in the right direction in achieving its vision of a world class sea port of choice?

- a) Right direction
- b) Somehow right
- c) Wrong direction

d) Partially wrong direction

e) Don't know

SECTION C

(Tick the appropriate box below)

3.	KPA Resources	5	4	3	2	1
R_V1	Organization has modern cargo handling equipment which meet customers' expectations.					
R_V2	Other value added facilities such as the banks, hotels, etc. located within the Port are satisfactory and make you happy.					
R_V3	Good and convenient road and rail transport within the port.					
R_V4	The organizations building's layout and departments are easy to locate and accessible					
R_V5	Availability of clean and accessible public areas such as washrooms.					
4.	KPA Outcome	5	4	3	2	1
O_V1	KPA is flexible to the changes of ports and shipping industry, hence a reliable provider					
O_V2	KPA is a reliable service provider and adequately meets my needs					
O_V3	The payment/billing system is reliable and meet customers' requirements.					
O_V4	There is accuracy and keenness in financial transactions.					
O_V5	KPA ensures cargo is safe and secured within KPA premises.					
5.	KPA Processes	5	4	3	2	1
P_V1	The employees are willing and quick to assist the customers.					
P_V2	KPA information system and process is sufficient and stable enough to meet my company needs					
P_V3	KPA's employees are professionals who serve customers with respect and have enough knowledge to answer customer's queries.					

P_V4	Employees are consistently courteous to the customers					
P_V5	KPA employees provides professional personal individual attention to its customers					
P_V6	KPA responds to customers' queries, inquiries, etc. in time.					
P_V7	The forum provided by KPA to share my challenge and give my inputs is satisfactory.					
P_V8	KPA follows- up on customers' needs.					
6.	KPA Management	5	4	3	2	1
M_V1	KPA is sensitive to its customers and seeks to develop their growth					
M_V2	KPA takes into consideration its customer's suggestions and opinions.					
M_V3	Customers' inputs are taken into consideration in the organizations decision making process.					
M_V4	KPA has an open door policy for its customers (access to management, information, etc.).					
M_V5	KPA is dedicated in fighting fraudulent and corrupt activities					
M_V6	The Management attitude towards customers instills confidence					
7.	KPA Image & Social Responsibility	5	4	3	2	1
SRI_V1	KPA makes effort in being environmental sustainable					
SRI_V2	KPA practices fairness among its customers					
SRI_V3	KPA demonstrates good CSR with KPA stakeholders					
SRI_V4	KPA makes to fight corruption in the port					
8	Customer Desired Value					
CD_V1	Customer's complaints are sorted out promptly					

CD_V2	Consistent and reliable service across all the departments.					
CD_V3	New developments are communicated to the customers in time					
9	Customer Perceived Value					
CP_V1	Convenient transport within Port premises and ample parking area for customers					
CP_V2	KPA's one-stop center makes it easy to conduct all businesses under one roof.					
CP_V3	KPA's pricing policy enables my company realize its return in investments					
10	People	5	4	3	2	1
PPL_V1	I feel confident that when I share my business challenges they will be sorted out amicably.					
PPL_V2	KPA employees give listening ears to the customers					
PPL_V3	Integration of different departments' duties /activities such that employees can clearly understand customer's needs.					
PPL_V4	KPA management are friendly and support customers in times of need					
11	Product/ Services	5	4	3	2	1
PE_V1	Satisfactory and convenient port working hours					
PE_V2	KPA has transparent customer policy					
PE_V3	Clearly labeled offices and sign posts for directions					
PE_V4	KPA offers prompt services to customers.					
PE_V5	KPA has a good customer complaints handling system in place.					
12	Promotion	5	4	3	2	1
PRO_V1	My company receives / benefits from KPA's promotional activities.					
PRO_V2	KPA's promotional activities add value to my company.					

PRO_V3	KPA recognizes the importance of a long serving customer.					
PRO_V4	KPA rewards customers with bulk consignments.					
PRO_V5	KPA gives incentives to companies which promotes green economy (environmental friendly).					
13.	Price/ Cost	5	4	3	2	1
PRI_V1	KPA charges reasonable prices its services.					
PRI_V2	KPA's pricing policies are sound and transparent.					
PRI_V3	The prices are flexible enough to meet customers' needs.					
PRI_V4	Customers' pricing feedback influences KPA pricing decisions.					
14.	Customer Satisfaction	5	4	3	2	1
CS_V1	How satisfied are you with KPA's fairness of pricing?					
CS_V2	How satisfied are you with KPA's employees' courtesy, professionalism, knowledge and expertise to meet your needs?					
CS_V3	How satisfied are you with the organizations ethics and integrity?					
CS_V4	How satisfied are you with the information you receive and the timeline of the Organization in responding to your needs?					
CS_V5	How satisfied are you with KPA's range of services?					
CS_V6	I am satisfied with the services I receive at KPA					
CS_V7	I am satisfied with the information flow between the Organization and my company					
15	Customer Loyalty	5	4	3	2	1
CL_V1	I am likely to recommend KPA services to others.					
CL_V2	I am likely to share my positive experiences at the port with others.					
CL_V3	I am likely to seek KPA's service anytime.					
CL_V4	I value my relationship with KPA thus it has my loyalty					

CL_V5	KPA values its customers and relationships more than its short term goals.					
16	Performance	5	4	3	2	1
PCE_V1	KPA is passionate about establishing and maintaining long term and beneficial relationship with its customers					
PCE_V2	Do you think KPA can improve its performance if it emphasized more in adapting to its customer's needs?					
PCE_V3	Do you think a customer oriented service will make you a happy, satisfied and loyal customer to KPA?					
PCE_V4	Do you think KPA is offering satisfactory service to its customers?					
PCE_V5	Do you think good customer management can improve KPA's overall image?					
PCE_V6	KPA services exceeds my expectations					

SECTION D

17. What is more important to your business?

- a) Pricing
- b) Quality of service?

18. Which of the following would you identify as KPAs greatest weakness in serving its customers effectively?

- a) Too slow processes.
- b) Customer needs insensitive
- c) Uncooperative employees
- d) Poor customer feedback
- e) Customer bias

19. In your opinion, does global climate change and precisely greening of ports of importance to your company?

- a) Very important
- b) Somewhat important
- c) Not too important
- d) Not a problem

e) Not sure

Appendix IV

EMPLOYEE QUESTIONNAIRE

The statements will be measured in a five-point scale ranging from “Highly satisfied /agree” to “Highly dissatisfied / disagree” which is as below.

Rating-5 highly satisfied / agree

Rating-4 fairly satisfied / agree

Rating-3 satisfied /agree

Rating-2 dissatisfied / disagree

Rating-1 highly dissatisfied /disagreed

NB: KPA, Organization and Ports will be used interchangeably and will mean the same thing.

SECTION A

Name (optional):

Gender: Male /Female

Designation:

SECTION B

(Tick the appropriate box below)

1	PHYSICAL FACILITIES	5	4	3	2	1
PF_V1	Organization has modern facilities.					
PF_V2	The offices and work areas are safe.					
PF_V3	Other facilities such as washrooms, kitchen, and prayer rooms are available and properly maintained.					
PF_V4	I am satisfied with the accessibility to KPA premises.					
PF_V5	The work environment meets my expectations.					
2	ORGANIZATION BENEFITS / POLICIES	5	4	3	2	1
OB_V1	I am satisfied with the medical policy of the organization.					
OB_V2	I am satisfied with the healthcare provided by my organization.					
OB_V3	I am satisfied with the sick leave policy.					

OB_V4	I am satisfied with my working hours.					
OB_V5	I am satisfied with the annual leave policy.					
3	SAFETY	5	4	3	2	1
STY_V1	I am satisfied with the organization safety policy.					
STY_V2	I am satisfied with the safety training programs provided at workplace.					
STY_V3	I am satisfied with the engagement of safety department in safety programs and initiatives within the work place.					
STY_V4	I am satisfied with the issuance of personal protective equipment / gears.					
STY_V5	Safety rules and standards are well communicated and emergency exits are clear and easily accessible.					
4	COMMUNICATION / DECISION MAKING	5	4	3	2	1
DM_V1	There is effective communication flow of information between management and subordinates.					
DM_V2	There is effective communication of information between departments.					
DM_V3	There is effective communication among staff from different departments.					
DM_V4	Decision taken by management reflects the viewpoints of subordinates.					
DM_V5	There is work transparency.					
5	LEADERSHIP	5	4	3	2	1
LDR_V1	I am satisfied with the management professional skills.					
LDR_V2	I am satisfied with the leadership skills of my immediate supervisors.					
LDR_V3	There is a good relationship between the management and the subordinates.					
LDR_V4	There is an effective conflict resolution procedure in place.					
LDR_V5	Management is open to criticism from subordinates without prejudice.					

6	PERSONAL ATTENTION / EMPLOYEE MOTIVATION	5	4	3	2	1
EM_V1	Organizational structure is appropriate for work.					
EM_V2	Employee performance is measured and rewarded based on excellent performance.					
EM_V3	Employees are paid bonuses for meeting the organizations target in time.					
EM_V4	Employees' worries / requests are dealt with promptly.					
EM_V5	Management provides all employees' work needs / equipment required to make their work efficient.					
7	Information Technology	5	4	3	2	1
IT_V1	The organization's IT system (software and hardware) is stable enough to accommodate the changing needs of customers.					
IT_V2	The IT system is sufficient to store customers' information. It also enables real time information across departments.					
IT_V3	The employees and customers are conversant with KPA's IT processes to enable Organization serve its customers better.					
IT_V4	The rising importance of connecting with customers through social media is applicable within KPA's current IT system.					
IT_V5	The system provide individual customer data availability at every contact point?					
8	KPA's Objective	5	4	3	2	1
KO_V1	The organization has clear established goals on customer care.					
KO_V2	Every employee fully understands the needs of KPA's customers.					
KO_V3	KPA has professional employees who provide technical support to its customers.					
KO_V4	The organization provides for channel which enables efficient communication with our customers.					
KO_V5	The organization commits time and resources in managing customer relationships.					

9	PROMOTION / EMPLOYEE TRAINING/ PERSONAL DEVELOPMENT	5	4	3	2	1
TRN_V1	I am satisfied with the available training opportunities to staff.					
TRN_V2	I am satisfied with the local training opportunities in Bandari college.					
TRN_V3	I am satisfied with the career advancement opportunities.					
TRN_V4	The organization provides me with training opportunities even when I do not demand for it.					
TRN_V5	Promotion or career advancement is guaranteed upon completion of a training course / program.					
10	REMUNERATION	5	4	3	2	1
REM_V1	My salary justifies my work and is satisfactory.					
REM_V2	I am satisfied with the current working model-7 day's system.					
REM_V3	I am satisfied with the rewarding model-overtime.					
REM_V4	My remuneration is paid fully during leave periods.					
REM_V5	I receive additional allowances for good performance/strenuous working.					
11	TEAM WORK	5	4	3	2	1
TW_V1	Mutual respect exist between immediate supervisors (managers) and subordinates and work as a team.					
TW_V2	The Organization encourages teamwork with colleagues from other background (tribes, religion, race, etc.) and provide team building events.					
TW_V3	Diversity exist in the attribution of work space / offices.					
TW_V4	There is coordination of activities in the department to meet customers' needs.					
TW_V5	The organization encourages group decision than individual decision.					
12	SATISFACTION	5	4	3	2	1
ES_V1	I am satisfied with the organization's policies.					

ES_V2	I am satisfied with organization's remuneration scheme.					
ES_V3	I am satisfied with the organization's work space and facilities.					
ES_V4	I am satisfied with the organization's overall treatment to staff.					
ES_V5	I am satisfied as a KPA employee.					
13	CRM PRACTICES	5	4	3	2	1
CRM_V1	The organization stresses customer value over pricing.					
CRM_V2	The organization works hard to establish social bonds with our customers.					
CRM_V3	The organization emphasizes on efficient communication and customization of services to our customers.					
CRM_V4	The organization focus on fair treatment to its customers.					
CRM_V5	I think a stronger emphasis on maintaining sustainable relationship with our customers can improve our performance?					